

# TEXTILE BULLETIN



VOL. 62

JULY 15, 1942

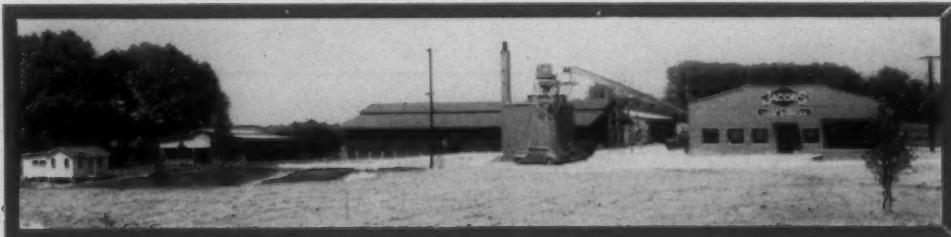
NO. 10



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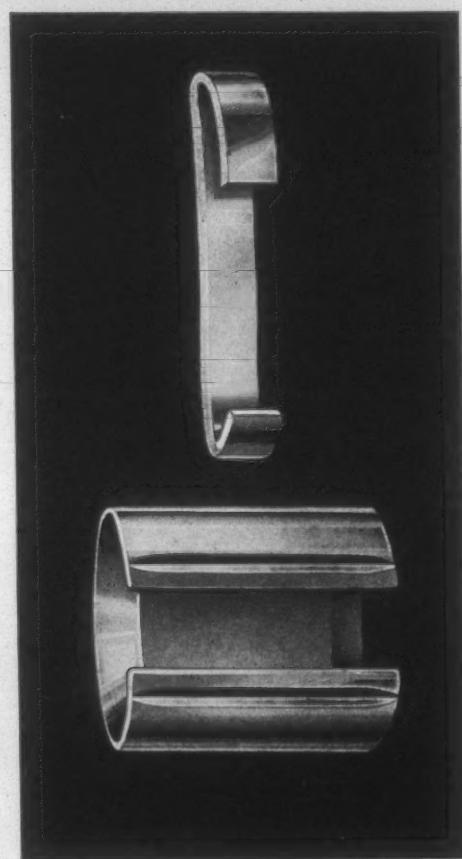
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are the travelers that are made to eliminate these enemies of production and profits...THE

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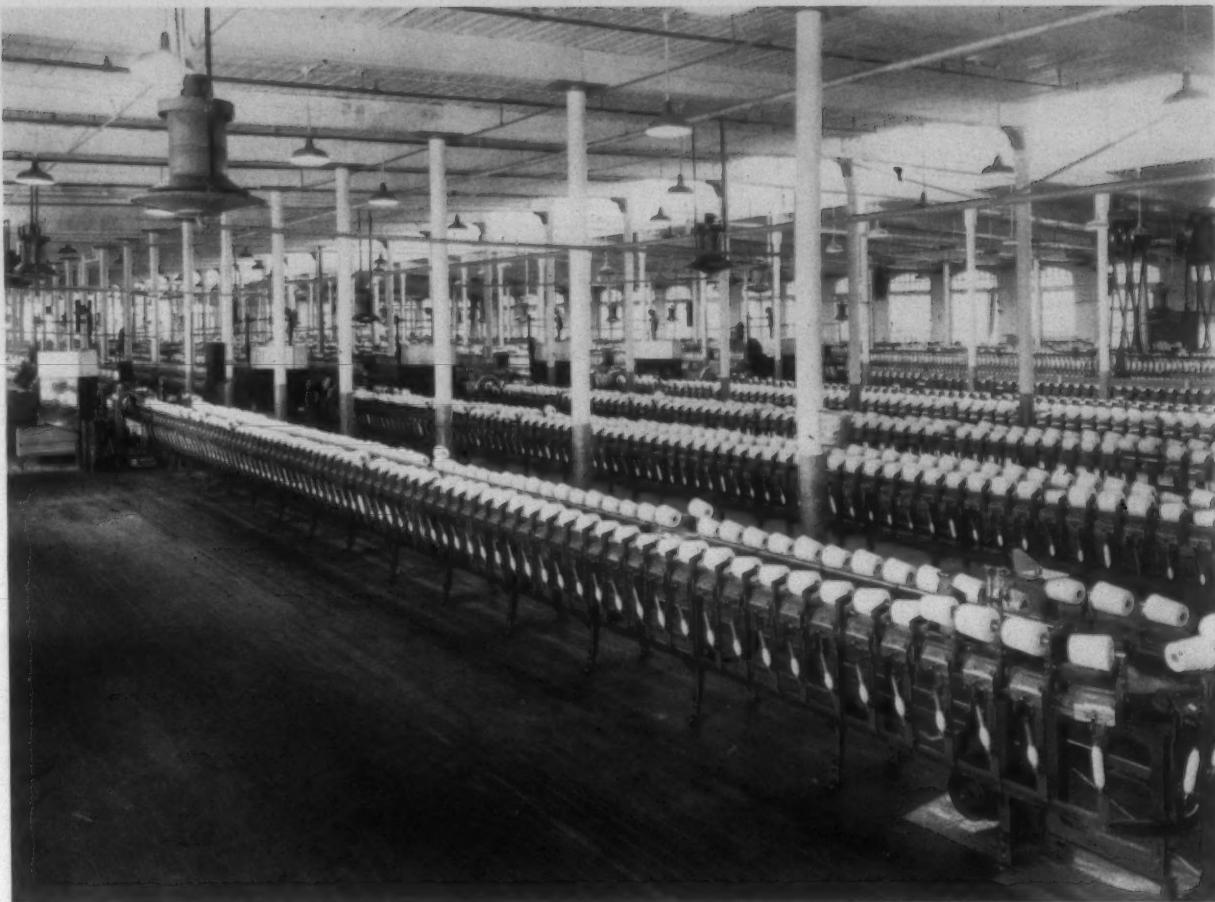
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*By assuming non-combatant duties which will relieve men for combat service, Women's Army Auxiliary Corps will stand shoulder to shoulder beside our fighting forces.*

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In cheerfully assuming the tremendous responsibility of speeding the record production of cloth and fabrics for uniforms and countless other military uses, the Textile Industries have demonstrated the productive power and the firm determination of free Americans to stand shoulder to shoulder beside our fighting forces.

And as makers of textile products for spinning and weaving operations, Dayton is proud of its part in this

great war production effort. We consider it both a privilege and a duty to serve the great Textile Industries which are serving our nation so well.

*In addition to serving the Textile Industries, Dayton's facilities and production experience are today being dedicated to the manufacture of special parts for Army and Navy Combat Equipment.*

THE DAYTON RUBBER MFG. CO.  
TEXTILE PRODUCTS DIVISION  
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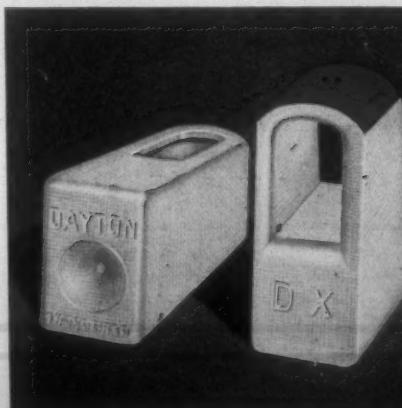
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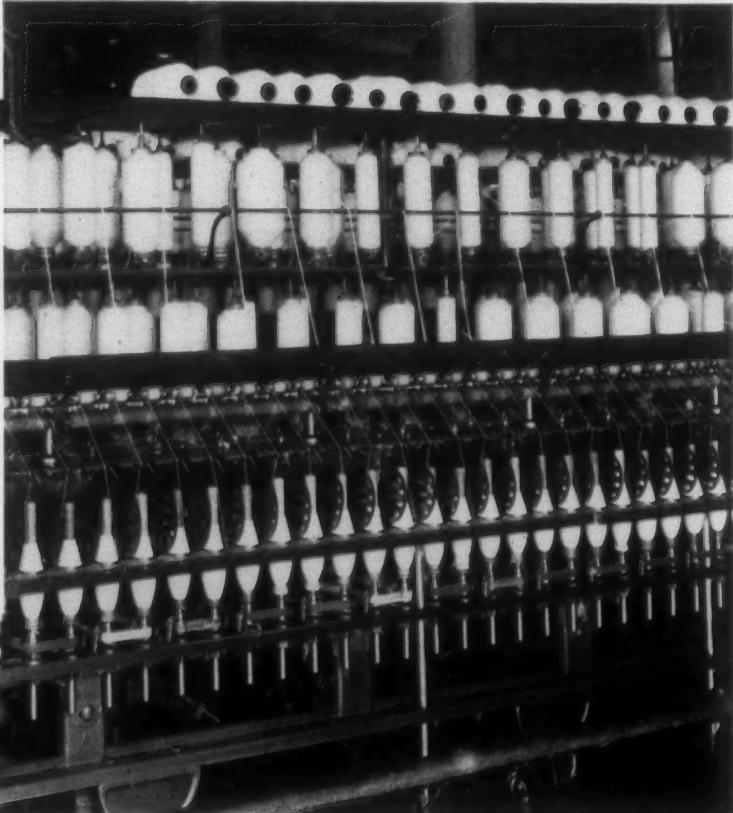
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These oils meet all requirements of spindles and top rolls in stepped-up production. Sinclair also produces quality oils for *Knitting Machinery*.

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# TEXTILE BULLETIN



Vol. 62

July 15, 1942

No. 10

## The Army

### DEPENDS ON COTTON GOODS

SIXTY-SEVEN per cent of the record-breaking volume of unfilled orders held by cotton textile mills represent contracts connected with the war efforts since they bear priority ratings of A-10 and better, Dr. C. T. Murchison, president of The Cotton-Textile Institute, told the Cotton Research Congress at its annual meeting in Dallas, Tex., July 10th.

The speaker explained that this figure was obtained as a result of a survey made by the Institute and that it bears out the prediction of the War Production Board that more than 50 per cent of the production of the industry this year will go into military requirements.

In some important divisions of the industry, the percentage of production going into war classifications is much larger than the over-all average. He stated that the entire production of mosquito netting is now covered by contracts bearing high priority rates. Other divisions of the industry contributing the major part of their output to the war effort include: Tobacco and cheesecloth (gauze for hospital supplies, 84 per cent; drills, 90; osnaburgs, 97; twills, 99; combed poplins, 90; numbered duck, 94; army duck, 91; sheetings, 81; lawns, including airplane and balloon fabrics, 83; filter ducks, 81.

#### Analysis of Future Purchases

The war, he said, has not only changed the character of the industry's output by the conversion of looms to heavy, durable fabrics and the elimination of luxury items but has markedly altered the distributive picture. The bulk of cotton goods purchases from now until the end of the conflict, he explained, may be subdivided as follows:

1. Direct purchases by our military and naval establishments of the wide variety of goods that go into the manufacture of clothing, tents and equipage. These purchases already have run into many millions of yards and are responsible in the main for the lifting of cotton goods output to heights that many in the trade once regarded as unattainable.

2. Purchases by contractors of cotton products that are an important component of many kinds of military material. They include items such as the cotton cords in rubber tires, insulating yarns for the wires in all mechanical

equipment, and the many cotton "parts" in planes, jeep cars, rubber boats and other mobile equipment.

3. Purchases by war industries of cottons required in manufacturing processes. These include items such as conveyor belts, hose, abrasives, polishing cloths, etc., which consume large amounts of the raw fiber. In normal times, industrial uses account for approximately 40 per cent of the output of the industry. There is every reason to believe that this percentage still holds despite the astonishing increase in cotton textile production.

4. Purchases for lend-lease. With the extension of the war into all parts of the globe, shipments of cotton goods under lend-lease arrangements undoubtedly have been large. Included in this connection may be purchases by various relief agencies, such as the Red Cross, for distribution to the afflicted in war-torn lands.

5. Purchases for domestic war purposes. Included in this category are materials such as bagging fabrics, industrial tapes and various types of combed goods which are being produced under directives by the WPB and sales of which are limited to specifically defined purposes. Much of this business went to materials of other fibers before the advent of war.

"These classifications," he added, "afford only a rough outline of the changes wrought in the industry by the war. To the war and resultant upturn in employment in field and factory may be credited the enormous increase in sales of cotton work garments to both men and women. The way in which cotton has been called upon to make up the deficit in the supply of other fibers also constitutes a notable war-time development. The Department of Agriculture estimates that 3,000,000 bales of cotton may eventually be required to replace imported raw fibers such as jute, silk, flax, hemp, sisal and kapok."

"The effect of these combined war-time developments on the industry can best be measured in terms of cotton consumption. In 1932 mills consumed 5,017,000 bales of the fiber. If consumption continues at the current daily rate over the rest of the year, the industry will consume 11,840,000 bales. This compares with a normal peace-time consumption which rarely exceeded six million bales

(Continued on Page 45)

# Comparative Test Data for Cottons Processed with Different Flat and Licker-in Speeds on the Cards\*

By G. H. Dunlap\*\*

**G**OOD carding is characterized by evenness and uniformity of sliver and cleanliness of web. In achieving these results, the licker-in and flats play an important part. Opinions differ, however, as to what constitutes the most efficient speeds for the licker-in and flats, the most efficient speeds being those which combine maximum production with maximum quality in yarns.

With a view to producing reliable data for a study of increased licker-in and flat speeds as compared with regular speeds, a co-operating mill, under the sponsorship of The Textile Foundation, The Arkwrights, and The Southern Textile Association, has conducted tests, the results of which are given in Table 1. These data are to be interpreted in terms of production, efficiency in machine operation, measured in terms of strength and uniformity.

Five lots of cotton of the same mix, grade and staple length were tested individually, the same five cards being used for each lot. The machine organization for the five lots was identical except for the increased speeds in licker-in and flats, respectively. See Table 2. Each lot of cotton consisted of approximately 450 pounds. All lots were processed on the same drawing frame and the same roving frame. Careful and accurate recordings were made of all speeds relating to the test, and these speeds are shown in Tables 2 and 3. The temperature and relative humidity were checked and recorded every two hours during the processing and the average relatively humidity is given in Table 3.

In these tests the percentage of card waste is based on the net weight of cotton fed to the card. The average weight of the card sliver is based on 100 sizings of one yard each. The average tensile strength and average yarn sizes, respectively, are based on 100 breaks each. The single-strand data represents the average of 200 observations. No creeling was done during the period in which the ends down per thousand spindles per hour were checked.

These data are indicative only since definite conclusions cannot be drawn from any one test. The statistical analysis shows a highly significant difference in the results when the flat speeds were increased from 2.96 inches per minute to 4.31 and 5.91 inches per minute, respectively. The data in Table 1 indicates that with the higher speeds, (1) waste in the form of flat strips increased, (2) card

sliver became less uniform, (3) the appearance of the web deteriorated, and (4) neps were more numerous. The yarn skein strength was not affected materially by the increased flat speeds, however, the single strand strength results for the yarns processed with the flats moving at the rate of 5.91 inches per minute showed that a greater variation existed within the bobbins than between bobbins of yarn.

Increasing the licker-in speeds from 438.5 revolutions per minute to 486.5 and 524.8 revolutions per minute, respectively, had no significant effect on carding or yarn quality.

TABLE 2.—Classification of cotton, machine organization, speeds and settings used for the five lots tested.

Cotton classification:	Middling
Grade	
Staple	1-1/32 inches
Machine organization:	
Opening:	
3 hopper feeders	
Bale breaker	
Vertical opener with beater speed of 712 R.P.M.	
Lattice opener with beater speed of 550 R.P.M.	
Centrif—Air cleaner with beater speed of 332 R.P.M.	
Production per hour—1824 pounds—100 per cent	
Picking (two beater—one process):	
First beater (Kirschner)	975 R.P.M.
Second beater (Kirschner)	1050 R.P.M.
Lap	14.50 oz. yd.
Card settings:	
Doffer to cylinder	.007
Flats to cylinder:	
Front	.009
Back	.010
Licker-in to cylinder	.007
Feed plate to licker-in	.012
Mote knives to licker-in:	
Top	.010
Bottom	.010
Licker-in screen:	
Blank part	.017
Nose	.029
Cylinder screen to cylinder:	
Back	.029
Middle	.034
Front	.058
Back knife plate:	
Top	.034
Bottom	.017
Front knife plate:	
Top	.034
Bottom	.029

\*This is the third published preliminary report in a series of card tests conducted by co-operating mills and sponsored by The Textile Foundation, The Arkwrights, and The Southern Textile Association.

\*\*Professor of Carding and Spinning, Textile School, Clemson College, S. C. On leave of absence.

TABLE 1.—Quantities of card waste, card production, variation in card sliver, condition of card web, fiber distribution of flat strips, yarn strength and end breakage for cottons processed with different flat speeds and different licker-in speeds.

ITEM	Speed of flats (inches per min.)			Speed of licker-in (R.P.M.)		
	2.96	4.31	5.91	438.5	486.5	524.8
<b>Cards:</b>						
Waste:						
Flat loading	None	Light	Heavy	None	None	None
Flat strips (%)	3.07	3.91	4.71	3.07	3.22	3.09
Cyl. and doffer strips (%)	.22	.25	.24	.22	.22	.24
Motes and fly (%)	1.46	1.74	1.40	1.46	.63	1.82
Production:						
Pounds per hour (100%)	14.78	14.20	14.05	14.78	14.55	14.09
Sliver:						
Avg. grains per yard	59.15	57.52	57.02	59.15	58.30	59.83
Standard deviation	2.96	3.24	3.95	2.96	3.77	2.73
Coeff. of variation (%)	5.15	5.68	6.78	5.15	6.37	4.56
Avg. max. variation (%)	18.70	21.90	24.10	18.70	20.70	15.50
Condition of web:						
Appearance	Good	Fair	Poor	Good	Good	Good
Neps	Normal	Few More	Excessive	Normal	Normal	Normal
Flat strip analysis:						
Suter Webb sorter:						
Upper quartile (inches)	.935	.972	1.00	.935	.969	.956
Coeff. of variation (%)	60.29	49.93	50.57	60.29	53.08	54.44
Fibrograph:						
Upper half mean (inches)	.945	.980	.955	.945	.935	.940
Index unif. (%)	73.15	74.00	24.20	73.15	74.45	72.55
Spinning:						
Yarn count—12s:						
Actual yarn count	11.78	11.97	12.11	11.78	11.64	11.82
Actual yarn strength (lbs.)	189.10	186.70	184.10	189.10	188.70	188.20
Corrected yarn strength (lbs.)	185.60	186.20	185.80	185.60	183.00	185.40
Break factor	2228.00	2235.00	2229.00	2228.00	2196.00	2224.00
Rating (%)	100.00	100.31	100.04	100.00	98.56	99.82
Single strand strength (lbs.)	1.467	1.463	1.419	1.467	1.502	1.485
Ends down per 1000 spindles per hr.	31.90	24.10	27.77	31.90	22.82	25.19

TABLE 3.—Machine speeds, weight sliver, hank roving, yarn count, average relative humidity and other information for cottons processed with different flat speeds and different licker-in speeds.

ITEM	Speed of flats (inches per min.)			Speed of licker-in (R.P.M.)		
	2.96	4.31	5.91	438.5	486.5	524.8
<b>Card Speeds:</b>						
Cylinder (R.P.M.)	164.80	165.60	163.80	164.80	164.80	165.40
Flats—inches per min.	2.96	4.32	5.91	2.96	2.97	2.96
Licker-in (R.P.M.)	438.50	441.20	433.00	438.50	486.50	524.80
Doffer (R.P.M.)	10.54	10.42	10.40	10.54	10.53	9.94
<b>Drawing processes:</b>						
Breaker:						
Average grains per yard	60.10	60.00	59.50	60.10	61.00	61.10
Speed of front roll (R.P.M.)	455.00	455.00	455.00	455.00	455.00	455.00
Type top roll	Cork	Cork	Cork	Cork	Cork	Cork
Finisher:						
Average grains per yard	63.70	63.90	62.80	63.70	64.00	64.10
Speed of front roll (R.P.M.)	460.00	460.00	460.00	460.00	460.00	460.00
Type top roll	Cork	Cork	Cork	Cork	Cork	Cork
Roving—Long draft—8x4:						
Average hank	1.49	1.49	1.51	1.49	1.49	1.45
Twist multiplier	1.27	1.27	1.26	1.27	1.27	1.29
Type top rolls	Cork	Cork	Cork	Cork	Cork	Cork
Spinning—Long draft:						
Yarn count (actual)	11.78	11.97	12.11	11.78	11.64	11.82
Machine draft	17.52	17.52	17.52	17.52	17.52	17.52
Spindle speed (R.P.M.)	7002.00	7086.00	7101.00	7002.00	7272.00	7198.00
Twist multiplier	3.83	3.80	3.78	3.83	3.85	3.82
Front roll speed (R.P.M.)	170.00	170.00	170.00	170.00	175.00	175.00
Type top rolls	Cork	Cork	Cork	Cork	Cork	Cork
Ring diameter (inches)	2.25	2.25	2.25	2.25	2.25	2.25
Average relative humidity:						
Cards (%)	39.00	49.70	47.50	39.00	43.70	42.80
Drawing (%)	51.40	44.00	54.30	51.40	46.00	46.00
Roving (%)	53.20	57.30	57.30	53.20	53.20	57.30
Spinning (%)	57.00	57.70	55.50	57.00	56.20	57.10

# Certain Fabrics and Sellers Exempted from Maximum Price Regulation No. 127

SEVERAL groups of fabrics and certain classes of sellers are exempted from Maximum Price Regulation No. 127 (Finished Piece Goods) under the terms of Amendment No. 6 to this order, announced July 14th by Price Administrator Leon Henderson.

The amendment transfers a specified list of fabrics produced under military specifications to Regulation 157 (Textiles, Apparel and Related Items for Military Purposes) while other groups of fabrics and sellers are removed from Regulation 127 and placed under the General Maximum Price Regulation.

Also provided are an adjustment of the "division factor" used in establishing ceilings on jacquard fabrics, a change in the method by which an independent converter determines his basic grey goods costs, a means whereby producers of fabrics used in high priced dresses may petition for an adjustment of ceiling prices, and a premium for the sale of cut lengths of piece goods.

The amendment became effective July 14, 1942.

## Finished Piece Goods for the Armed Services

The Administrator has found that it is in the interest of the war effort to subject certain finished fabrics to Regulation 157 which is specifically designed to accomplish price regulation of certain military supplies with the least possible interruption of or interference with their flow to the armed services. The present amendment effects this transfer from Regulation 127 for the following fourteen types of finished piece goods made to the specifications listed below:

- (1) 8.2 combed uniform twill (P. Q. D. No. 33-A).
- (2) Bleached and shrunk twill (27 T 25).
- (3) Shrunk khaki suiting (Marine Corps Specification No. 22, 1937).
- (4) 6 oz. combed twill (P. Q. D. No. 95).
- (5) Wind resistant cloth (P. Q. D. No. 1).
- (6) Lining twill (6-100B).
- (7) Mosquito netting (P. Q. D. No. 17-A).
- (8) Balloon cloth (27 C 13 INT).
- (9) Balloon cloth (6-39-G).
- (10) Airplane cloth (AN-CCC-C-399).
- (11) Marine shirting (Marine Corps Specification April 18, 1934, Revised to March 10, 1942).
- (12) Rubberized fabric (M 54).
- (13) Black lining twill (27 L 6).
- (14) Balloon cloth substitute (Specifications described in invitation Neg. 336).

These goods become subject to Regulation 157 on July 15, 1942.

A similar provision in a recent amendment to Regulation No. 118 (Cotton Products) transferred other specified finished piece goods from that order to the military regulation. Most of the large quantities of goods being purchased by the Army, Navy and Marine Corps fall under Regulations 113 or 127. Inasmuch as suppliers of the armed forces have been in doubt as to which regulation governs the sale of the piece goods—depending upon whether they are finished and marketed predominantly by weavers or by converters—OPA determined upon the transfer of these goods to Regulation 157.

## Exemptions of Fabrics and Sellers

Four types of fabrics are exempted from Regulation 127 and placed under the General Maximum Price Regulation. OPA investigation has disclosed that the pricing formula provided by the regulation is inapplicable and that the quantity produced and marketed is too small to permit operations to continue under the terms of the order.

The following types are affected:

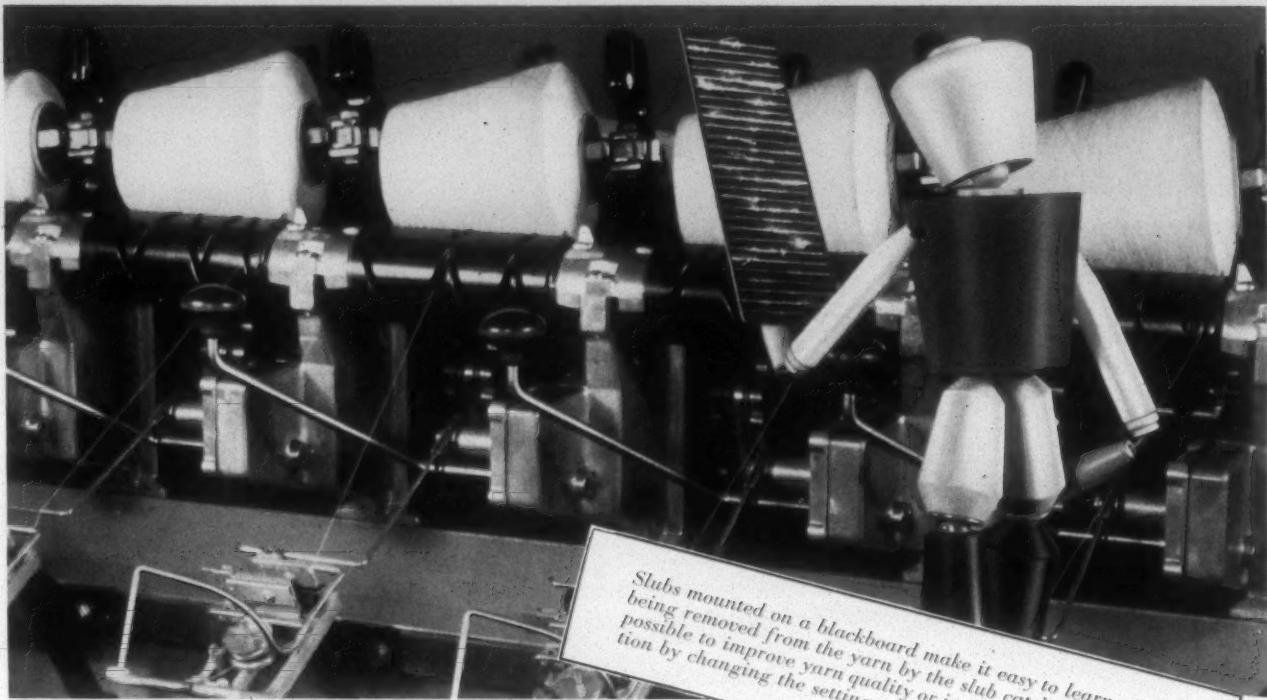
- (1) Ecclesiastical fabrics (finished piece goods woven, printed, dyed or embossed in colors, patterns or designs prescribed by religious law or tradition, and sold exclusively for use in the manufacture of religious accessories).
- (2) Metallic fabrics (finished piece goods which contain woven metal in the amount of five per cent or more by weight).
- (3) Loom-finished fabrics (yarn-dyed or warp-printed piece goods which (a) are woven on a non-automatic loom; (b) are produced in quantities of less than 3,000 yards per warp design, per month; (c) use not more than two looms per pattern design; (d) require no finishing other than calendering or framing after leaving the looms, and (e) constitute a type not commercially traded in as grey goods).
- (4) Woven or printed decorative pattern fabrics, composed in an amount of 75 per cent or more by weight of synthetic yarn which pattern fabrics are sold exclusively to necktie manufacturers.

In the case of loom-finished fabrics, a person claiming exemption shall, before making deliveries, file his name and address with OPA and submit a monthly report showing the total quantity of finished piece goods delivered under the exemption. This provision is designed to provide OPA with adequate information as to the quantity of merchandise sold under the exemption.

(Continued on Page 48)

*Inspected Yarn for Knitting  
High-Quality Fabrics... from the*

# ROTO-CONER\*

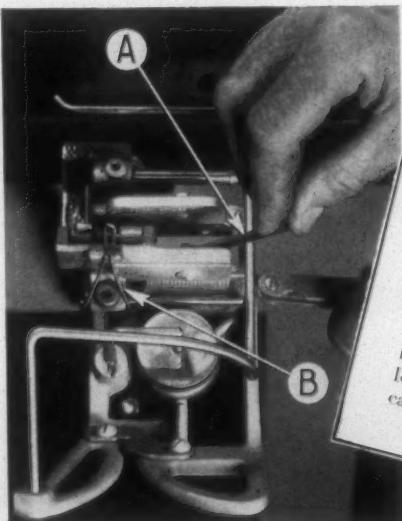


*Slubs mounted on a blackboard make it easy to learn what is being removed from the yarn by the slub catchers. It may be possible to improve yarn quality or increase operator production by changing the settings.*

For winding knitting yarns, the Roto-Coner\* is fitted with two Precision Slub Catchers, independently adjustable. The special design of these Slub Catchers makes it easy for the fixer to get accurate and parallel settings. Once set, the blades are locked in position to protect against change due to vibration or tampering.

Yarn wound on the Roto-Coner will also be free of "fuzz"; the rotating traverse revolves in the same direction the yarn is travelling, so there is no chafing to rough up the fibres. Roll-cut yarn has been eliminated entirely by the smooth, one-piece driving and traversing roll.

Such yarn can be used on the knitting machine without rewinding.

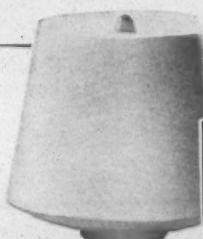


## PRECISION SLUB CATCHERS

When making a new setting, a wrench (A) is used to unlock and open the old setting, so that a feeler gauge can be inserted. A spring tension closes the upper half against the feeler gauge, insuring an accurate and parallel setting under uniform tension. When the MacColl (needle-type) is being set, a clip (B) is slipped over the needles to hold them rigid. The wrench then locks the setting, and the gauge can be withdrawn with ease.

See our Catalog in TEXTILE YEARBOOK

\*Reg. U. S. Pat. Off.



# ROTO-CONER



Reg. U. S. Pat. Off.

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# *Reminiscences of* YE OLDE COTTON FACTORY

By  
I. K. EDWARDS  
Part Seven

**I**T IS somewhat difficult to fully comprehend and to properly appreciate the multitude of obstacles, unexpected hindrances, sometimes long delays with which mill operatives were often faced.

For a period of weeks the entire plant and personnel would move along smoothly, the ends "running good," no machine breakdowns to worry about, plenty of help, and everybody cheerful.

Then a card grinder or a second hand or maybe a loom fixer is leaving to take a bigger job in a distant mill and all his old help must get acquainted with a new man and he with them, a situation which always provided a fine opportunity for the bringing out of teamwork so conducive to a well rounded program.

Sometimes a dry summer, the water in all the rivers and creeks runs low, causing several hours loss of time each week.

Then again a small draft gear about two inches in diameter and one inch thick, placed on a speeder (roving frame) too hastily and not properly adjust might soon start "skipping a tooth" causing a very thin place in the roving (called cut roving) at each revolution of the gear and a few inches apart on the roving according to the size of the front steel roll on the frame. These thin or cut places would break the ends on spinning frames so only a few minutes with a draft gear "running wild" on a speeder would cause many hundreds of spinning ends to break down.

The same experience would result in the event of an improperly placed gear on a spinning frame and cause trouble on the spooling and other subsequent processes.

The oiler in the spinning room next in rank and under the supervision of the second hand, was the "handy man" for the room. In addition to oiling and tying on the spindle bands, keeping the top (ceiling) brushed down with an extra long-handled broom and numerous other tasks, he usually spent his leisure time learning to fix by helping the section hand.

One of these regular oiler boys was out on sick leave and a substitute took over till he could return. A thick, heavy grade of oil was used for shafting and large bearings on machinery, and a thin, light oil for the spindles. It was very important that each of these oils be used where they belonged.

Being anxious to make good on the job, the new oiler made the old-time-worn mistake of being too over-enthu-

siastic, and filled his oil cups with heavy shafting oil and set out to oil all his spindles at one "lick."

Which was all very commendable up to that point.

But for the timely, if blood-curdling squeal of a little spinner, yes, that same quiet, timid, gentle little spinner. He was "tearing her ends all down! Every one of 'em! Just look! Henry didn't mess my sides up that way!"

Well, he'd made a blunder. But how? A few minutes' time was required to allow the heavy oil to work down into the spindle base and serve as a brake on the spindle, causing ends to break for lack of twist to supply strength to the yarn to keep from breaking, also causing bands to become overloaded and break.

Fortunately only a few frames suffered, for the section hand very soon came up and in a short time had the atmosphere all clear again.

And that, dear reader, is another unquestionable example of the immense possibilities within reach of the worthy aspirant to highest achievement in this proud and mighty field of honest endeavor—overcoming *all* the obstacles and finishing the job.

The peculiar structure of the cotton fibre has long since revealed the possession of an immense number of possibilities, and as study and research has been employed to determine the extent of its benefit to humanity, so has its usefulness been clearly recognized by all those persevering seekers for knowledge of cloth-making.

Many experiments had been made prior to the beginning of the present century to discover a "best method" to open, clean and mix the several different grades and staple lengths of cotton and prepare it for carding. The old type opener with the long lattice apron on the back upon which cotton was spread by hand was replaced by a mechanical "hopper feeder" which would hold several hundred pounds of cotton and was fitted with a traveling apron at bottom of hopper.

This apron was about 3 to 4 or more feet long by about 32 to 37 inches wide and moved at a slow speed of a few feet per minute belt fashion, and moved the load of cotton thrown into the hopper by hand, in a forward motion against an almost upright "spiked" apron which carried a uniform amount of cotton over a series of spiked rollers on to another apron in a uniform, evenly distributed state, thence between two fluted steel rolls about 2½ or more inches in diameter and heavily weighted and into the beater box.

After trying out a number of beaters over a period of years the "blade" type was generally accepted as the most effective and was used for a long period for the results were very satisfactory so far.

(Continued on Page 47)

# 4-PLY SERVICE GETS RESULTS!



*...Tufton, a special rayon fiber developed for floor coverings*

WHEN RUG MANUFACTURERS first told us what they required of a rayon fiber for use in floor coverings, it was obvious that no suitable rayon staple was then available. That might have been the end of the story, if it weren't for our policy of FOUR-PLY SERVICE.

Instead of saying "no," and letting it go at that, our fiber technicians tackled the problem with a vengeance. First, they determined just what properties were needed—how much resilience, wearability, soil resistance, strength, and ability to cover. Then they set about to develop a fiber with these qualities. Tufton was the result. You can

judge its success by the fact that some of America's leading floor covering manufacturers are already using this special fiber with outstanding results.

This is a typical example of the way our FOUR-PLY SERVICE gets results. Whenever you have a problem involving rayon, bring it to rayon headquarters—to American Viscose Corporation. Our aim is to help you in every way we possibly can.

#### FOUR-PLY SERVICE

- 1 **FIBER RESEARCH**—Helps you get the right yarns.
- 2 **FABRIC DEVELOPMENT**—Helps you design new fabrics.
- 3 **MILL TECHNIQUE**—Helps solve mill problems.
- 4 **SALES ASSISTANCE**—Helps sell finished products.

**AMERICAN VISCOSE CORPORATION**

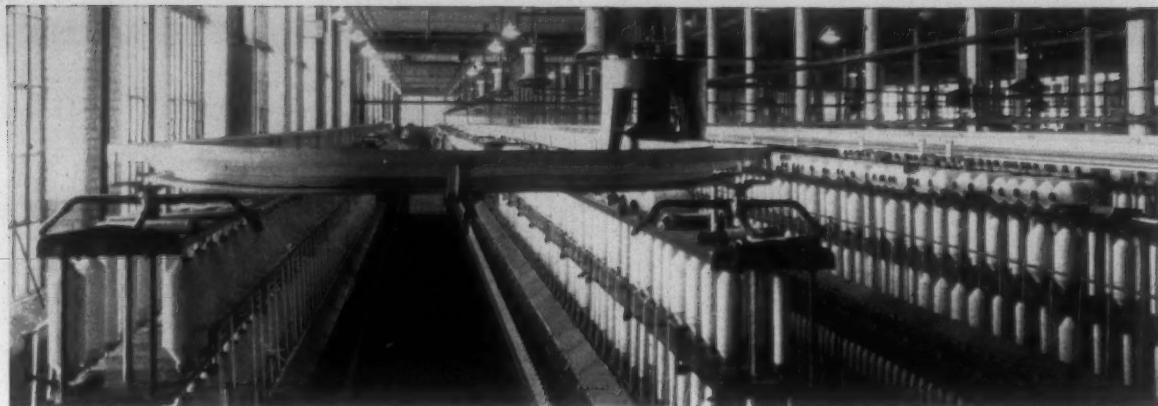
*Producer of CROWN Rayon Yarns and Staple Fibers*

Sales Offices: New York, N. Y.; Charlotte, N. C.; Providence, R. I.; Philadelphia, Pa.

Plants: Marcus Hook, Pa.; Roanoke, Va.; Parkersburg, W. Va.; Lewistown, Pa.; Meadville, Pa.; Nitro, W. Va.; Front Royal, Va.



Cop. 1942—American Viscose Corp.



## Factors Affecting Twist Per Inch In Spinning

The effect of contraction on draft calculations in the spinning room is not generally understood throughout the industry. Many men know of it but few know of the theory behind it, or the other factors that influence turns per inch in yarn. For that reason we are reprinting, from *The Whitin Review*, the following article on the subject. Spinners might find in it the cause for some of the things they have wondered about.

**T**HE contraction which takes place during the spinning of a yarn has long been recognized as an important factor in making draft calculations. A twist contraction table is shown below:

Twist Contraction Table

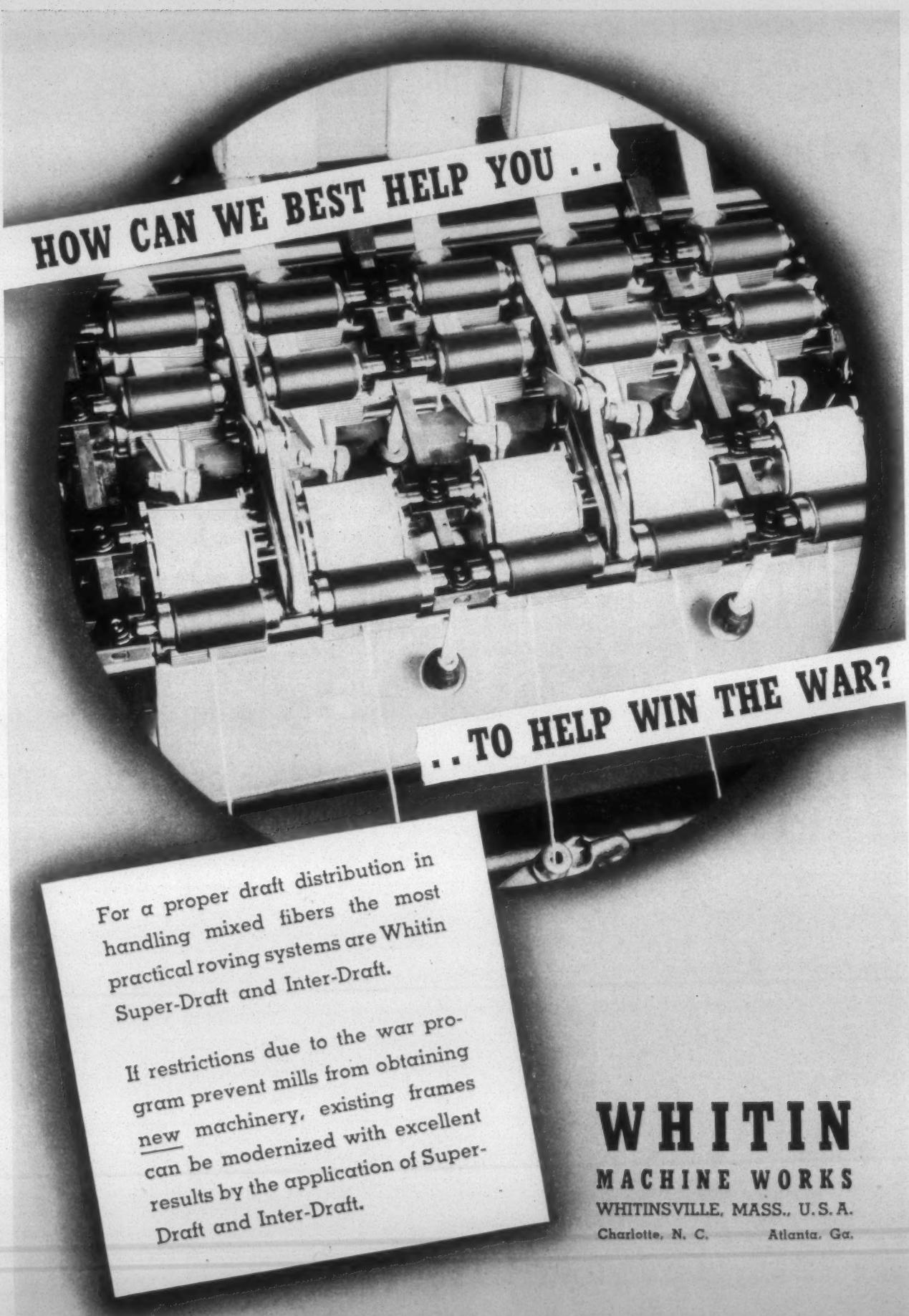
Twist Multiple	% Contraction
3.00	3.10
3.05	3.25
3.10	3.40
3.15	3.53
3.20	3.65
3.25	3.78
3.30	3.90
3.35	4.03
3.40	4.15
3.45	4.28
3.50	4.40
3.55	4.55
3.60	4.70
3.65	4.83
3.70	4.95
3.75	5.08
3.80	5.20
3.85	5.35
3.90	5.50

Twist Multiple	% Contraction
3.95	5.60
4.00	5.70
4.05	5.81
4.10	6.00
4.15	6.15
4.20	6.30
4.25	6.43
4.30	6.55
4.35	6.68
4.40	6.80
4.45	6.93
4.50	7.05
4.55	7.20
4.60	7.35
4.65	7.48
4.70	7.60
4.75	7.73
4.80	7.85
4.85	8.00
4.90	8.15
4.95	8.28
5.00	8.40

Realizing that contraction affects draft calculations, one is naturally led to the thought that contraction must also have its effect upon the twist per inch inserted in a yarn.

Twist is normally calculated through the gearing and spindle drive, and the inches per minute delivered by the front roll are divided by the revolutions per minute of the spindle. Whereas 100" of yarn may be delivered by the front roll in a given unit of time, if the twist contraction is 7%, there will be only 93" wound onto the bobbin. The revolutions of the spindle scheduled to insert twist in

(Continued on Page 40)



For a proper draft distribution in handling mixed fibers the most practical roving systems are Whiting Super-Draft and Inter-Draft.

If restrictions due to the war program prevent mills from obtaining new machinery, existing frames can be modernized with excellent results by the application of Super-Draft and Inter-Draft.

**WHITIN**  
MACHINE WORKS  
WHITINSVILLE, MASS., U.S.A.  
Charlotte, N. C. Atlanta, Ga.

# Classification, Spinning and Fibre Data For a Series of Cottons

THE following rather comprehensive test data on cottons of a number of varieties, at a number of different U. S. Department of Agriculture Stations throughout Texas, show to some extent the effect of variety and

growth conditions on these cottons.

It will be noted that on skein strength of 22s yarn the variation in strength is from 125.4 pounds in the case of Rogers Acala grown at Chillicothe to 82.8 pounds for

Location and Variety	Grade	Classification	Staple length	Spinning test data						Appearance grade of 22s yarn (1)
				Picker & card waste		Yarn skein strength				
				Percent	Remarks (1)	22s	Finest count	Strength index (2)		
<i>College Station</i>										
Rogers Acala	M—	1-1/32	7.60	Normal	114.8	31.8 (60s)	117.1	B		
Coker 100-3	LM+	1-1/16	9.48	Slightly low	97.4	26.1 (60s)	94.7	B—		
Watson	SLM	31/32	8.66	Slightly low	92.9	32.2 (50s)	97.9	A—		
New Boykin	SLM	31/32	8.61	Slightly low	90.4	29.9 (50s)	92.3	A—		
Mebane (A. D. Estate)	SLM	31/32	7.59	Low	96.5	32.9 (50s)	101.1	B+		
Lankart	SLM	15/16	7.97	Slightly low	102.0	36.2 (50s)	113.0	A—		
Shafter Acala	SLM Brt.	1-1/32	8.64	Normal	105.0	29.6 (60s)	107.8	B—		
Sunshine	SLM	15/16	9.40	Normal	82.8	25.9 (50s)	86.4	B—		
Deltapine A (DPL 11-A)	SLM Brt.	1-1/32	8.06	Slightly low	95.6	22.9 (60s)	91.2	B		
Stoneville 2B	SLM to SLM Brt.	1 to 1-1/32	8.24	Slightly low	109.1	40.4 (50s)	114.0	B		
Washington	SLM Brt.	1-1/32	8.78	Normal	106.2	28.9 (60s)	107.5	B		
Roldo Rowden	SLM	1	8.56	Normal	91.0	27.9 (50s)	87.7	B+		
<i>Temple</i>										
Rogers Acala	SLM	1	9.79	Normal	113.1	39.8 (50s)	115.8	B		
Mebane (A. D. Estate)	SLM	15/16	9.81	Normal	98.0	31.2 (50s)	103.8	A—		
Bryant Mebane	LM	29/32	11.11	Normal	96.6	37.2 (44s)	105.8	B+		
Cleett	SLM	15/16	9.17	Normal	97.0	31.0 (50s)	102.1	B+		
New Boykin	SLM	7/8	9.68	Normal	92.0	33.3 (44s)	101.3	B+		
Watson	SLM	29/32	9.13	Normal	101.6	38.4 (44s)	109.1	B+		
Ferguson 406	LM	7/8	10.65	Normal	95.0	31.3 (44s)	105.3	B+		
Sunshine	SLM	15/16	11.36	High	85.8	25.5 (50s)	87.5	B		
Shafter Acala	SLM	15/16	8.55	Normal	101.5	33.8 (50s)	109.4	B		
Lankhart	SLM	31/32	8.71	Normal	104.1	35.3 (50s)	108.0	B		
Deltapine A (DPL 11-A)	LM	31/32	13.14	High	100.5	34.0 (50s)	104.1	B		
Buckellew Mebane	SLM	29/32	8.96	Normal	96.8	37.1 (44s)	104.7	A—		
Roldo Rowden	SLM	15/16	9.00	Normal	91.6	27.0 (50s)	93.1	B		
<i>Greenville</i>										
Nucala	M	1	6.21	Very low	103.8	33.3 (50s)	102.0	B+		
Lone Star D-2	M	1	6.55	Low	98.2	32.2 (50s)	97.1	B+		
Lone Star P4-1-64	M	1-1/32	6.81	Low	102.6	25.1 (60s)	98.5	B+		
B. A. R. (Kekchi)	SLM	1-3/32	9.46	Normal	114.8	31.2 (60s)	107.1	B—		
Shafter Acala	M	1-1/16	6.72	Low	104.8	27.8 (60s)	100.0	B		
Ferguson 406	M	31/32	6.68	Low	93.5	30.4 (50s)	94.3	A		
Rowden (Malone)	M	29/32	6.79	Low	93.2	34.9 (44s)	100.8	A—		
Hog Round	M	31/32	6.09	Very-low	98.8	32.5 (50s)	101.3	A—		
Qualla	M	31/32	6.21	Very-low	96.5	32.6 (50s)	100.0	A—		
Watson	M	15/16	6.21	Very low	96.8	31.3 (50s)	101.6	B+		
Sharp	M	15/16	6.34	Low	99.0	33.3 (50s)	106.1	A—		
Washington	M	1-1/16	6.97	Slightly low	116.5	31.1 (60s)	111.3	B+		
Stoneville 2B	M	1-1/16	6.80	Slightly low	111.0	29.4 (60s)	105.5	B		
<i>Chillicothe</i>										
Rogers Acala	M Lt. sp.	1-1/16	6.98	Slightly low	125.4	34.2 (60s)	120.7	A—		
Shafter Acala	SM Lt. sp.	1-1/16	7.06	Normal	111.4	30.0 (60s)	107.3	B+		
Mebane (A. D. Estate)	M Lt. sp.	1-1/32	8.00	Normal	97.8	24.0 (60s)	94.3	A—		
Mebane 140	M	15/16	7.47	Normal	103.1	34.1 (50s)	110.5	A		
Qualla	M Lt. sp.	1-1/32	7.72	Normal	98.5	25.1 (60s)	96.3	B+		
Watson	M	1	6.54	Low	93.3	30.4 (50s)	92.1	B+		
<i>Victoria</i>										
Shafter Acala	SM	1-1/32	5.17	Very low	113.2	30.0 (60s)	112.7	A—		
Acala-Cody Lentz	SM	31/32	5.82	Low	114.8	41.2 (50s)	123.4	B+		
Acala-Hasselfield	SM	31/32	5.45	Very low	117.3	40.1 (50s)	122.4	B+		
Acala-Rogers 111	SM	31/32	5.67	Very low	121.7	43.5 (50s)	130.8	A—		
Acala-Tex. Rogers	SM	31/32	5.70	Very low	117.5	41.9 (50s)	126.2	A—		

(1) Remarks influenced by grade of cotton in each case.

(2) Average of yarn strength indices for 3 counts after correcting for differences attributed to staple length. (1935-'6-'7 Region Variety Series=100)

(3) In accordance with A. M. S. Cotton Yarn Appearance Standards. A = Excellent, A— = Very Good, B+ = Good, B = Acceptable, B— = Poor.

# es of Cottons Grown In Texas During the 1940 Season

Sunshine, grown at College Station.

In practically all cases the Acala cottons showed better breaking strength and strength index.

It should be interesting to all mill men to note these

characteristics of the various cottons, and it emphasizes the importance of the one-variety communities, where these communities will concentrate on the production of a good variety of cottons.

Fiber Characteristics

Location and Variety	Upper quartile length	Weight per inch	Thin-walled fibers	Tensile strength per sq. inch	X-ray 40% angle	Outstanding fiber characteristics
	Inches	Micrograms	Percent	1000 lbs. (5)	Degrees	
<i>College Station</i>						
Rogers Acala	1.208	3.99	28.3	87.6	32.1	Good strength
Coker 100-3	1.218	4.25	32.8	78.6	37.6	About normal
Watson	1.049	4.74	31.4	68.8	39.1	Very weak
New Boykin	1.065	4.73	29.9	71.2	38.2	Weak
Mebane (A. D. Estate)	1.120	4.76	26.6	77.8	36.7	About normal
Lankart	1.163	4.60	31.3	80.4	36.5	About normal
Shafter Acala	1.200	3.80	31.6	77.8	38.0	Fine fibered
Sunshine	1.118	5.32	27.5	71.2	37.0	Coarse, weak
Delapine A (DPL 11-A)	1.198	4.46	25.7	79.2	36.1	About normal
Stoneville 2B	1.199	4.24	26.3	86.4	31.6	Good strength, small angle
Washington	1.196	4.12	30.7	80.6	33.6	About normal
Roldo Rowden	1.106	5.53	22.9	81.8	34.7	Coarse, mature
<i>Temple</i>						
Rogers Acala	1.116	4.15	27.4	93.0	28.2	Excellent strength, small angle
Mebane (A. D. Estate)	1.041	4.67	30.8	80.4	33.5	About normal
Bryant Mebane	.997	4.90	23.1	77.8	35.4	About normal
Cleett	1.048	5.11	30.9	78.0	35.6	About normal
New Boykin	.982	4.74	32.8	77.8	34.8	About normal
Watson	1.005	5.21	28.3	70.0	37.8	Weak
Ferguson 406	.962	5.38	26.8	75.6	36.8	Coarse, slightly weak
Sunshine	1.073	5.54	27.8	71.4	34.2	Coarse, weak
Shafter Acala	1.074	4.55	34.8	81.0	35.6	About normal
Lankhart	1.068	4.53	32.0	84.2	34.2	Good strength
Delapine A (DPL 11-A)	1.069	4.51	27.8	84.6	32.8	Good strength
Buckellew Mebane	1.017	5.14	26.4	72.2	37.5	Weak
Roldo Rowden	1.034	5.44	27.2	77.4	31.2	Coarse, fair strength, small angle
<i>Greenville</i>						
Nucala	1.099	5.09	25.7	86.0	34.0	Good strength
Lone Star D-2	1.118	5.16	24.2	79.0	35.4	About normal
Lone Star P4-1-64	1.172	4.80	24.2	78.2	35.5	About normal
B. A. R. (Kekchi)	1.250	4.51	27.6	85.8	32.6	Good strength
Shafter Acala	1.230	4.12	27.7	76.0	38.0	Slightly weak
Ferguson 406	1.035	4.92	23.7	69.6	38.2	Mature, very weak
Rowden (Malone)	1.047	5.59	21.1	82.6	35.6	Mature, coarse
Hog Round	1.086	5.11	22.3	76.8	35.8	Mature, slightly weak
Qualla	1.101	5.01	22.7	77.0	37.9	About normal
Watson	1.065	4.92	33.0	70.6	39.6	Weak
Sharp	1.131	5.16	29.4	76.0	35.7	Slightly weak
Washington	1.167	4.44	36.7	84.0	29.9	Good strength, small angle
Stoneville 2B	1.206	4.23	31.9	88.4	32.0	Very good strength
<i>Chillicothe</i>						
Rogers Acala	1.236	4.08	26.9	89.6	33.2	Very good strength
Shafter Acala	1.255	4.07	34.4	87.8	40.0	Very good strength, large angle
Mebane (A. D. Estate)	1.127	5.14	22.3	76.8	38.0	Slightly weak
Mebane 140	1.029	5.20	27.9	79.4	34.0	About normal
Qualla	1.196	4.88	23.6	69.2	40.7	Very weak, large angle
Watson	1.087	4.96	30.8	69.6	40.7	Very weak, large angle
<i>Victoria</i>						
Shafter Acala	1.172	3.94	32.7	80.6	37.8	Fine fibered
Acala-Cody Lentz	1.090	4.11	28.8	87.8	31.8	Good strength, rather small angle
Acala-Hasselfield	1.095	4.32	31.7	80.4	34.8	About normal
Acala-Rogers 111	1.092	4.10	30.0	90.2	29.9	Excellent strength, small angle
Acala-Tex. Rogers	1.149	4.11	30.0	86.8	32.6	Good strength

4) Figures in parenthesis refer to count of yarn spun from the respective cottons.

5) Differences between means of approximately 2,700 pounds are required for significance (odds of 19 to 1) and of 3,500 pounds to be highly significant (odds of 99 to 1).

NOTE: The above tests were made in the laboratories of the Agricultural Marketing Administration, Cotton Branch, at College Station, Texas in co-operation with the Agricultural and Mechanical College of Texas.

# What to Do About the Short Time Workers?

By T. C. BROCKLEMAN

**A**T the outset don't get the idea that I know the answer to the problem of what to do about workers that only want to work from three to four days a week during the present hot weather. I don't know, and I don't think anyone else knows. However, I do think that I may have some ideas from my own experience and from looking about in the textile towns of the South. The things I am about to say are purely my own opinions, to be taken for what they are worth.

As background, I might say that I have worked long hours in textile mills, for as little as 15 cents an hour, and for as long as 65 hours a week. I've had lint and grease and sweat all over me, and I've blown myself off with the air hose (against regulations), and I've dogged it along with the rest when the weather got so hot it just was too hot to work. I nearly rubbed the end of my nose off before I got used to the lint. And I've cussed the boss for a so-and-so slave driver.

Right now, though, the situation is a little bit different. The textile industry is just as much in this fight as are the gun factories, the plane factories, arsenals, or the tank factories. It is true that an army fights with guns and bullets and bombs and planes and ships, but back of this primary material for killing there must be much more.

So far as I know, there isn't a single piece of equipment the armed forces use that doesn't in some way depend on some sort of textile equipment either in its manufacture or use.

## Dramatize the Part of Textiles

To go into detail about the hundreds of uses for textiles in the armed forces would be monotonous. The mere listing of these uses would take up too much space. However, the management of mills can do much more to bring to the attention of their workers than any printed words.

As a first suggestion to management in bringing home to their workers the importance of the job the textile workers have to do, I would suggest that the Bulletin Boards of the mills show the type of product the mill's yarn or cloth is going into, and its importance to the armed forces. If the mill is making duck, show on the Bulletin Board some samples of duck as used by the Army or Navy, or Marines. If it is combed yarn, show some of the finished uses of combed yarns as required by the Quartermaster Corps.

Very few people will put out extra work or effort for an intangible something that they can't see or feel. The ponderous generalities of politicians, who speak of "civil liberties—democracy—movement of the masses—dangers of inflation—protection of our liberties, etc., etc.," don't mean much to the average textile worker, or the average citizen for that matter. To arouse enthusiasm for any cause you've got to explain its aims in practical, understandable language or illustrations.

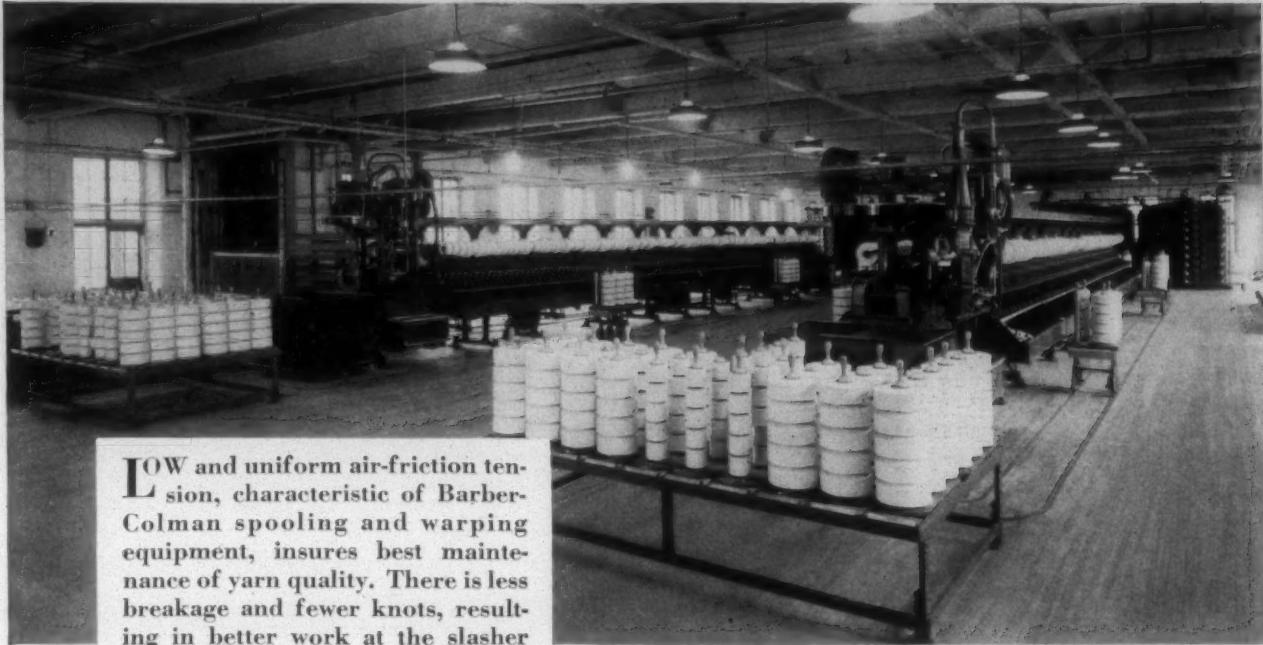
To speak of "protecting democracy" is nice, but to the textile worker who is tired and hot, this isn't nearly so effective as showing him that the yarn or cloth will directly aid Johnny or Willie, who just a few short months ago were working on the next job. The average worker doesn't give a damn about making the world safe for democracy, but if you can show him how he can help Sam or Joe slap down a few Jap rats or Nazis and win the war he will go all out.

## Workers Know Too Little About Product

The majority of textile workers know only about the work they themselves are doing. In the opener room, for instance, the average worker thinks only of getting the cotton to the pickers, and keeping his job going so that he will not be fired. He doesn't have any idea what that cotton will go into, or what its final destination will be. The same thing applies, with variations, throughout the mill. The workers in most cases are not intimately concerned with the final disposition of the product. They don't realize the importance of their job. It hasn't been brought down to them.

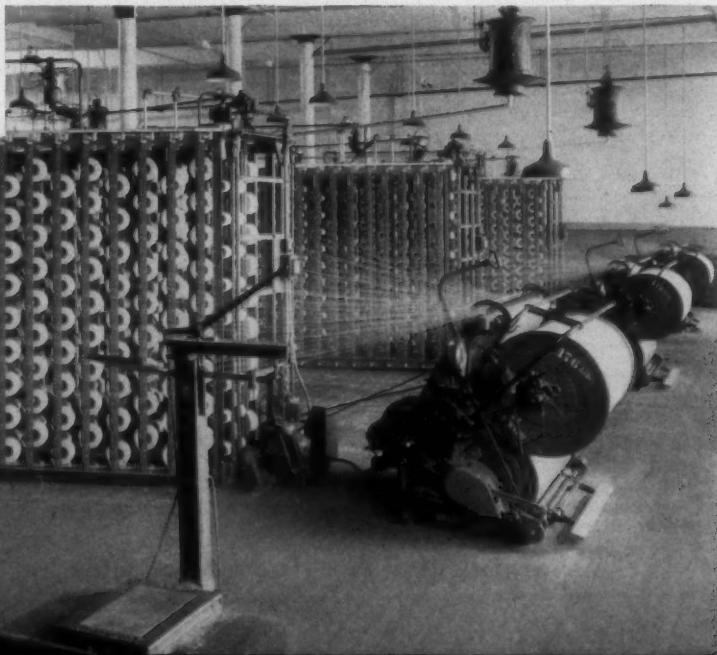
The textile workers of the South spring from a race of fighting people. The records of the number of fighting men today from the mills bears that out, and if the problem of production can be translated into individual responsibility, so that each worker can feel that he or she is producing for their own people, then production will increase. Let the worker *know* that what he is doing is important. That the extra effort on his part may mean the death of many enemies, and perhaps the salvation of his friends.

I don't know, but I believe that if management would put out the effort to show each and every worker in the plant just how important the textile industry is to the war effort, that there would be much less trouble keeping the workers on the job, and that production would show a material increase.



LOW and uniform air-friction tension, characteristic of Barber-Colman spooling and warping equipment, insures best maintenance of yarn quality. There is less breakage and fewer knots, resulting in better work at the slasher and straighter warps at the looms. Cleaning devices break out gouts, bad piece-ups, and thick places, reducing loom stops and seconds to a very marked degree. Less help is required to wind a given amount of yarn than on hand-operated equipment. The "trident" system of handling cheeses gives best protection against damaging yarn on the packages. These are some of the outstanding advantages of the Barber-Colman System of Spooling and Warping—and are significant reasons why this equipment is valuable for maximum efficiency and production in making war goods.

## BARBER - COLMAN AUTOMATIC SPOOLERS SUPER-SPEED WARPERS



**BARBER-COLMAN COMPANY**  
**ROCKFORD, ILLINOIS, U. S. A.**

FRAMINGHAM, MASS., U. S. A. • GREENVILLE, S. C., U. S. A. • MANCHESTER, ENGLAND • MUNICH, GERMANY

## Dorr Leaves Cotton-Textile Institute for War Manpower Board

Goldthwaite H. Dorr, chairman and member of the board of directors of The Cotton-Textile Institute, Inc., has resigned these positions in order to devote his full time to his duties as representative of the War Department on the War Manpower Commission.

Mr. Dorr became connected with the Institute as legal counsel in 1927 and was especially active during the NRA period. Following the resignation of George A. Sloan as president in 1935, he filled that position until the election of Dr. Claudius T. Murchison, subsequently becoming chairman of the board late in 1935.

Mr. Dorr in his letter of resignation to Dr. Murchison states:

"I can hardly bring myself to write this—my resignation from the chairmanship of the board of the Cotton-Textile Institute. My association with the Institute has been such a long one and for me such a happy one. First and last I have had rather intimate contacts with quite a number of industries but none have had the individuality, the forthrightness, the good fellowship, the genius for threshing out differences of opinion with frankness and vigor and coming to a sound course of action that I have found among our Cotton-Textile friends.

"There have been a lot of tough times, but there has never been a dull moment. I have appreciated so much the consideration and friendship of so many fine men.

"As I told you, now that I have committed myself to definite official responsibilities down here (Washington) as the War Department representative on the War Manpower Commission, I have felt it necessary to withdraw from my firm and feel that I should take the same action as to the board of the Institute."

## Louis Johnson Heads General Dyestuff

Washington, D. C.—Leo T. Crowley, alien property custodian, has announced that he had selected Col. Louis Johnson to serve as president of General Dyestuff Corp. of New York. Control of the corporation was seized by the custodian on July 6th.

General Dyestuff, according to Mr. Crowley, is the sales agency of General Aniline & Film Corp., dye manufacturing firm formerly controlled by I. G. Farben, the German chemical trust, but which has been under Government control since March of this year.

Colonel Johnson will assume his new duties immediately.

## New Committees of American Cotton Manufacturers' Association

Charlotte, N. C.—Committees to serve the American Cotton Manufacturers' Association for the new year have been appointed by Herman Cone of Greensboro, new president of the organization, and were announced here by W. M. McLaurine, secretary and treasurer of the Association.

They are as follows: OPA advisory committee, Herman

Cone, chairman, Hugh M. Comer, Scott Russell, C. A. Cannon, R. W. Arrington, R. D. Hall, Earle Stall; cotton promotion committee, Donald Comer, chairman, E. S. McKissick, George M. Wright, Sydney Bruce, W. H. Hightower; public relations committee, W. M. McLaurine, chairman, George S. Henry, R. E. Henry, S. H. Swint, Donald Comer, W. N. Banks, Herman Cone; traffic committee, S. M. Beattie, chairman, Fuller E. Callaway, Jr., C. A. Cannon, W. H. Ruffin, D. W. Anderson, Robert Cole, Hugh M. Comer; net weight committee, Hugh M. Comer, chairman, Wm. E. Entwistle, R. A. Spaugh, Jr., E. L. Jones, and Ernest Rees; National Cotton Council, Hugh M. Comer, chairman, R. W. Symmes, Norman E. Elsas, Ernest Rees, A. K. Winget.

National Industrial Conference Board, Herman Cone, representative, John A. Law, alternate; cotton committee, A. K. Winget, chairman, H. H. Greene, W. A. Floyd, B. J. Kane, C. A. Cannon; Southeastern Appeal Board, A. K. Winget; Joint Council of Arbitration, F. A. Williams of New York; Worth Street Rules, D. A. Turner, of Columbus, Ga.

## A. B. Emmert To Be Cotton Buyer for Riverside & Dan River

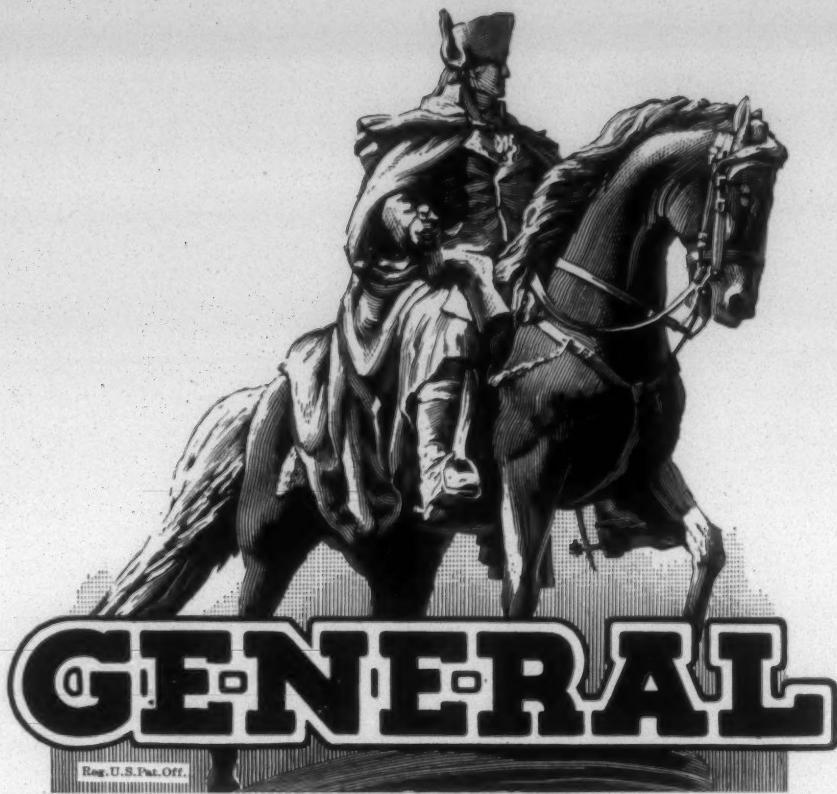
A. B. Emmert, the past seven years manager of the Texas Cotton Growers' Association, has been engaged by the Riverside & Dan River Cotton Mills, of Danville, Va., to succeed Henry Roediger as manager of its cotton department. Mr. Emmert will assume his new duties the first of August and will have charge of buying cotton for one of the world's largest mills, consuming more than 200,000 bales annually.

Starting at Paris, Tex., over 25 years ago, with the late firm of A. Eck & Moss, Mr. Emmert brings to the industry a wide experience. Later, he joined the Geo. H. McFadden & Bro. agency in Houston, serving as classer, table buyer, and executive in charge of domestic and export shipment for ten years. After a brief interlude in the cotton business on his own account, under the firm name of Emmert & Grissom, he accepted the management of the Texas Co-Ops, or Texas Cotton Growers' Association, a place he has held for seven years.

## O. H. Clapp Resigns From Stein, Hall & Co. To Enter Government Service

Oliver H. Clapp has resigned as an assistant vice-president of Stein, Hall & Co., Inc., manufacturer and distributor of starches, gums and dextrines, and importers of burlap, to become associated with the Defense Supplies Corp., Washington. Mr. Clapp has been in charge of the burlap division of Stein-Hall foreign department since last December, when Morris S. Rosenthal, a vice-president of the company, went to Washington to become assistant director of the Board of Economic Warfare.

The management and supervision of Stein-Hall's burlap division are now integrated in the foreign department under Cecil H. Coryat and Robert M. Stein, assistant vice-presidents, who have headed that department for some time.



High grade gas, by-product and steam coal from Wise County, Va., on the Interstate Railroad.



High grade gas, by-product, steam and domestic coal from Wise County, Va., on the Interstate Railroad.



High grade, high volatile steam and by-product coal from Wise County, Va., on the Interstate Railroad.



A laboratory controlled product blended to meet exacting stoker requirements. From Wise County, Va., on the Interstate Railroad.



Roda and Stonega from Wise County, Va., and Connellsville Coke from Pennsylvania.



High grade gas, by-product, steam and domestic coal—Pittsburgh seam from Irwin Basin, Westmoreland County, Pennsylvania, on the Penna. Railroad.



Genuine Third Vein Pocahontas from McDowell County, W. Va., on the Norfolk & Western Railroad.



Genuine New River Smokeless, Beckley or Sewell seam from Raleigh County, W. Va., C. & O. and Virginian Railroads.



Hazard No. 4 and No. 7 steam and domestic coal from Wiscoal, Knott County, Kentucky, on the L. & N. Railroad.



Steam and domestic coals from a number of producing districts.

### ANTHRACITE Premium and standard qualities in the entire range of Anthracite burning characteristics.

Capable engineering personnel and the experience gained through long and varied marketing activity assures proper application of one of the above brands and effective servicing of any fuel requirement.

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## Acme Steel Shifts Pedersen

K. J. Pedersen has just been transferred to Charlotte to handle sales in North and South Carolina, according to an announcement made by Frank H. Webb, Southeastern sales manager for Acme Steel Co., Atlanta, Ga. The untimely passing of F. G. German and the induction of G. R. Easley in the U. S. Army made the shift necessary.



With Acme for 20 years, Mr. Pedersen has competently managed important industrial sales territories including his recent Florida assignment.

"Red" Easley, on leave from his Acme duties in South Carolina, is now in the Army in training to become an officer. Mr. Pedersen is a veteran of World War I, having enlisted in the Air Corps in 1917. He saw service in France with the 1103rd Aero Squadron. Later he became an instructor in the Aerial Gunnery School at Tours, France. He joined Acme Steel in 1922.

Mr. Pedersen will maintain headquarters at 2243 Selwyn Ave., Charlotte, N. C.

## Wage-Hour Learner Regulations Amended

Amendments to the general regulations governing the employment of learners have been issued by L. Metcalfe Walling, Administrator of the Wage-Hour and Public Contracts Division, U. S. Department of Labor.

Under the amended regulations, which became effective June 25th, learners must be listed on the employer's payroll in a separate group. Records of any experience they may have had within the previous five years must be kept by the employer in the form of individual statements signed by the learners. No certificate issued by the Administrator may authorize the employment of learners in more than one plant. In case of a serious violation, learner certificates shall be cancelled by the Administrator.

Amendments to special learner regulations for the single pants, shirts and allied garments and women's apparel industries, also issued, provide that learners may be employed in certain occupations at rates lower than 40 cents an hour.

According to the regulations, which become effective July 20th, special certificates authorizing the employment of learners in these industries may be issued by the Administrator when it appears that experienced workers are not available and that the employment of learners will not create unfair labor cost advantages or depress working standards established for experienced workers.

Certificates may be issued for learners in the following occupations: machine operating (except cutting), pressing, handsewing, and finishing operations involving handsewing. Provisions prescribing the number of learners permitted, the duration of the learning period, and minimum rates of pay varying between 25 and 32½ cents per hour are included in the regulations.

## Superintendent Has Narrow Escape

Erwin R. Lehman, superintendent of the Langdale (Ala.) Mill of the West Point Mfg. Co., recently had, according to a report which has come to us, a very narrow escape.

He had retired an old overseer, upon a \$25 per week pension for life, but the man became dissatisfied for some reason.

While Mr. Lehman was in conference with several of his men, including the storekeeper, the former overseer appeared with a shotgun, the shell of which he had reloaded with small pieces of cut metal.

He announced that he was going to kill Superintendent Lehman but the storekeeper pushed him through a door which he slammed. The former overseer fired twice through the door, one charge tearing away a substantial portion of one hip of the storekeeper. He then managed to get into the room and, before he could be overcome, snapped a .45 calibre pistol, at close range, at the chest of Superintendent Lehman, but fortunately both caps were defective.

The former overseer is now in jail but Mr. Lehman had an exceedingly close call and his storekeeper was badly injured.

## OBITUARY

### HOWARD COLMAN

Rockford, Ill.—Howard Colman, president of Barber-Colman Co., of Rockford, and inventor of many textile devices and machines, died June 25th.

Mr. Colman invented a hand knitter, and perfected a warp tying machine, automatic spoolers, and high speed warping machines. The use of these products has done much to speed up processing in textile mills.

### J. D. COMPTON

Fairforest, S. C.—James Dorman Compton, 39, succumbed unexpectedly of a heart attack July 11th at his home in Fairforest.

Mr. Compton was assistant foreman of the Acme Loom Harness & Reed Co., of Greenville. He was a native of the Campobello section of Spartanburg County and was a member of the Fairforest Baptist Church.

### GIB. G. SLAUGHTER

Charlotte, N. C.—Gibbons Glover Slaughter of 429 East Kingston Avenue died July 15th at his home after an illness of two weeks.

Mr. Slaughter, native of Person County, was a textile machinery manufacturers' agent. He was prominently identified in Charlotte, having been active in the Rotary Club.

He formerly resided at Greenville, S. C., and acted as purchasing agent for a group of mills. He was one of the organizers of the Southern Textile Exposition.



## STREAMLINED FOR POWER SAVING!

The War Program of the United States demands from the textile industry of the country no small measure of co-operation.

In order to obtain the best results possible, the mill men have turned almost 100% to the use of those textile products which have proven themselves to be the best obtainable.

Our records show that approximately 75% of the cotton spinning spindles of the country are now equipped with the Original CUTLER Patented Power Saving Spinning Tape.

The savings realized by the use of CUTLER Spinning Tape speak for themselves.

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*Southern Representative*  
M. BRADFORD HODGES  
P. O. BOX 752 ATLANTA, GA.

# Mill News

HENRY RIVER, N. C.—One new Foster winder has been installed in the Henry River Mills here.

LOWELL, N. C.—Beaunit Mills, Inc., of Lowell, have added 21 additional flat knitting machines recently.

BURLINGTON, N. C.—Glenover Hosiery Mills, of this place, have increased their capacity from 20 to 30 machines.

BURLINGTON, N. C.—Lasley Hosiery Mills have installed 25 additional circular knitting machines, bringing their total up to 74.

CONCORD, N. C.—Hoover Hosiery Co., manufacturer of full-fashioned hosiery, has added 14 circular knit seamless machines for the production of ladies' hosiery.

SPRING CITY, TENN.—Southern Silk Mills recently took a contract to manufacture 30,000 olive drab mosquito bars for the Government.

GREENSBORO, N. C.—The Southland Hosiery Mill has been issued a permit to construct a 30x34-foot frame addition to be used as a dye room.

VILLA RICA, GA.—Wortham Hosiery Mill has added nine more circular machines recently, for the production of half hose and women's and children's anklets.

CHARLOTTESVILLE, VA.—Work was recently completed at the Charlottesville Woolen Mills on the installation of new and larger drying machines.

MCDONOUGH, GA.—At the McDonough Hosiery Mills, Inc., manufacturers of children's fancy anklets, a number of machines have been added during the past six months, bringing their total of machines up to 132.

RICHMOND, VA.—Following the liquidation of the King Cotton Mills Corp., the Wortendyke Mfg. Co., of this city, is now engaged in the manufacture of army duck on 50 looms, it is reported.

CRAWFORD, GA.—The Jefferson Mills No. 2 here is adding a large two-story building to the present plant. The latest type machinery will be installed in this annex, which will add to the capacity and efficiency of the plant.

ITASCA, TEX.—Manufacturing twine, mop yarns and yarn, the Itasca Yarn Mill, Inc., is operating 2,800 spindles. Tom Tirado is president; R. D. Hughes, vice-presi-

dent; Geo. Wilson, treasurer; W. D. Massey, superintendent.

KINGSVILLE, TEX.—The Kingsville Cotton Mill is now in operation here, with 2,440 spindles on the manufacture of cotton twines and webbing. Twelve looms are operating on the webbing. Paul Danforth is the sole owner of the mill.

NEWTON, N. C.—Fire of undetermined origin severely damaged the Cilley Hosiery Mills, near the business district of the town, on July 11th. Several firemen were also painfully scalded fighting the fire, which started in the stock room. Exact damage is not known, but was estimated to be between \$7,000 and \$10,000. Machinery was damaged by water, and considerable manufactured stock was lost. The mill, owned and operated by J. H. P. Cilley, Jr., employed approximately 20 persons. The plant will be reopened as soon as repairs can be made.

DANVILLE, VA.—Riverside & Dan River Cotton Mills are planning to expand the volume of cotton yarn units, and has already enlarged this production.

J. W. Sauer has been appointed the company's yarn representative in the Philadelphia territory, where he has been engaged in the cotton yarn business for over twenty years.

MARION, N. C.—The name of the Blue Ridge Hosiery Mills has been changed to Hewitt Hosiery Mills. A. C. Hewitt and A. C. Hewitt, Jr., are the proprietors. They have 56 machines on plain and fancy anklets and sport hose, also crew socks and reverse wrap sport hose. Harry C. Belber Co. and Etting Bros. of New York are the selling agents.

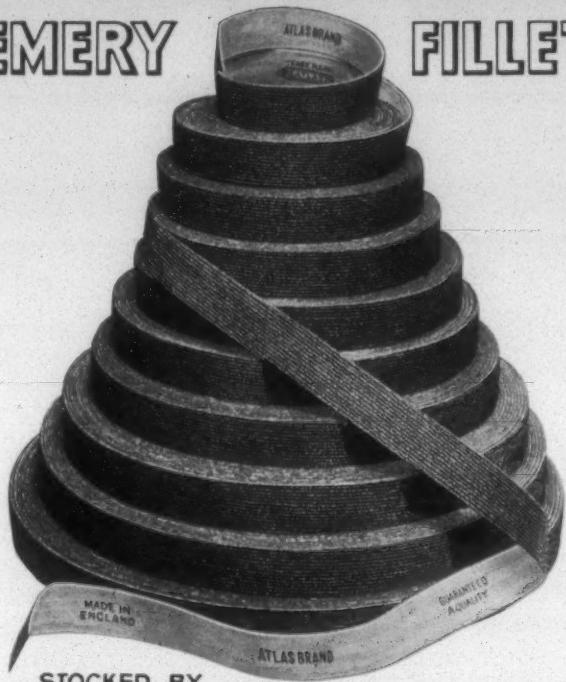
TELFORD, TENN.—Telford Knitting Mills are now operating here, with 100 Banner machines on the manufacture of men's 200-needle half hose. Auxiliary equipment includes 10 ribbers and 10 loopers.

Thomas Cooper Smith is proprietor of the mill, with W. A. Thomas as superintendent.

LINCOLNTON, N. C.—At the Balston Yarn Mills, Inc., much improvement has been made in recent months. The plant has been equipped with new floors, new lighting, and has been painted throughout. The mill is making fine combed specialty yarns, a great deal of which is going into war work.

Wm. L. Balthis is president and treasurer; George R. Poston, vice-president; B. G. Groves, secretary; R. F. Gardner, superintendent; and J. P. Morton, overseer.

# DRONSFIELD'S PATENT ATLAS BRAND EMERY FILLET



STOCKED BY  
THE PRINCIPAL MILL SUPPLY HOUSES  
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Since 1866 our policy of Fair Service to All has been the bulwark of our business. It has withstood the test of two major wars and several depressions. Today our customers have confidence in our ability to protect their interests . . . especially through the present emergency. They have confidence in the high quality of our textile starches . . . corn, potato, wheat . . which reflect the craftsman's art in skillfully converting the best materials the world affords. This customer confidence is one of our most valuable assets. We shall do all in our power to preserve and strengthen it.

STEIN, HALL & COMPANY, INC.

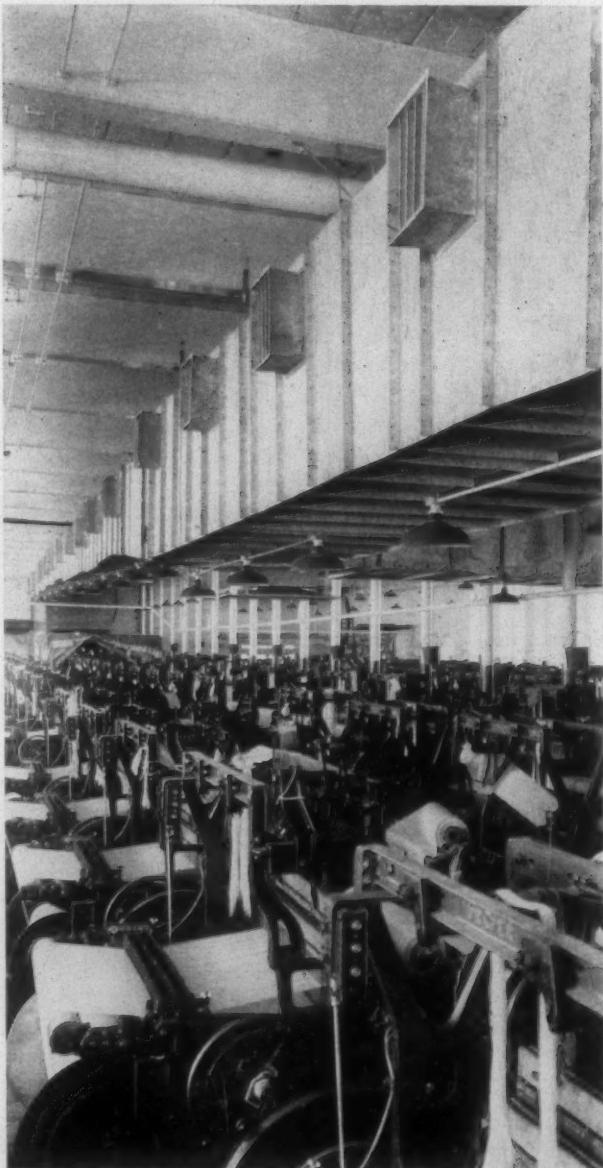
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## Certified Climate A Textile Necessity

MAKES possible a better product, frequently from lower grades of staple. Production is often improved as much as  $2\frac{1}{2}$  to 3 per cent. Certified Climate has been known to pay for itself in less than a year.



Parks-Cramer Company

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Charlotte, N. C.

# Personal News

Joseph L. Wright has been made superintendent of Republic Cotton Mills Nos. 1 and 2, Great Falls, S. C.

Lee F. Wynn is now overseer of spinning at Flint River Cotton Mills, Albany, Ga.

P. G. Cox is now manager of the San Antonio Cotton Mills, Southton, Tex.

Paul Danforth is now manager of the Kingsville (Tex.) Cotton Mill.

R. O. Ware is superintendent of the Kingsville (Tex.) Cotton Mills.

R. D. Hughes is president and treasurer of the Itasca (Tex.) Yarn Mill.

Spencer Ainsworth, formerly manager of the Gonzales (Tex.) Cotton Mills, is now president of that company.

Floyd W. Jefferson, Jr., has been admitted as a partner in Iselin Jefferson Co., New York City.

H. B. Clyburn, Jr., has resigned as overseer of spinning at Cannon Mills No. 5, Concord, N. C.

B. E. Blackwell has been promoted to overseer of spinning at Cannon Mills No. 5, Concord, N. C.

Wm. J. Hammerslough has been elected a director of Burlington Mills Corp.

L. M. Grimes has been elected vice-president of Dacotah Cotton Mills, Inc., Lexington, N. C.

Charles Reynolds has been promoted to the position of general superintendent of the Spindale Mills, Inc., Spindale, N. C.

Noah W. Parker, a weaver at Mills Mill, Greenville, S. C., is a candidate for the South Carolina House of Representatives.

L. C. Thomas is now assistant to Carl R. Harris, the vice-president and assistant treasurer of the Erwin Cotton Mills, Durham, N. C.

Paul Grueber is now assistant general manager of the Pacific Mills at Lyman, S. C., and Columbia, S. C., with headquarters at Lyman.

C. E. Clark, formerly with Riverside & Dan River Cotton Mills, Danville, Va., is now acting in an advisory capacity at the Quaker Meadow Mills, Hildebran, N. C.

Geo. M. Wright, Jr., superintendent of Republic Cotton Mills Nos. 1 and 2, Great Falls, S. C., has entered the army and is now at Camp Jackson, S. C.

John M. Hamrick, textile executive, has been elected president of the Gaffney, S. C., Junior Chamber of Commerce.

Chester McCallum, of the Bahnsen Co., Winston-Salem, N. C., has become head of the production division of the Charlotte office of the War Production Board.

Jack D. Marrow, formerly of Marrow & Son, overhauling carding machinery, is now second shift overseer at Entwistle Mfg. Co., Rockingham, N. C.

D. Singleton Cook has resigned his position with the Pepperell Mills, Biddeford, Me., to become vice-president and manager of the Ware Shoals (S. C.) Mfg. Co.

J. D. Burton, formerly overseer of spooling, winding and warping at Mooresville (N. C.) Cotton Mills, has accepted a position with the Mathews Cotton Mill, of Greenwood, S. C.

Hearne Swink, secretary of the Cannon Mills, Kannapolis, N. C., but a resident of China Grove, N. C., has been unanimously nominated by the Rowan County Democratic Executive Committee for County Commissioner.

Geo. M. Perry, secretary of the Central (S. C.) Mills, has been named as employer representative on the Advisory Council of the South Carolina Unemployment Compensation Commission.

Sam L. Diggle, Jr., son of the Charlotte yarn broker of the same name, has been promoted to lieutenant in the Naval Reserves. Before entering the armed forces he was manager of the Charlotte office of Acme Sales Co.

Lt. Edward A. Quintard, N. C. State Textile School graduate, and former assistant superintendent of the Swift Mfg. Co., Columbus, Ga., has graduated as a pilot officer at the flying school at Turner Field, Albany, Ga.

W. L. Clements, formerly superintendent of the Laurens (S. C.) Cotton Mills, is now assistant superintendent of the Riverside Division of the Riverside & Dan River Cotton Mills, Danville, Va.

W. Murray Clark, Jr., N. C. State College Textile graduate and recently with the Kendall Mills, Paw Creek, N. C., is now in Northern Ireland with the American Expeditionary Force.

B. Everett Jordan, secretary and treasurer of the Sellers Mfg. Co., Saxapahaw, N. C., is chairman of the Board of Directors of the new Alamance County Tuberculosis Sanatorium.

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Prompt Shipment All Grades on Short Notice

Suitable for Blends with Rayon or Cotton

HOUGHTON WOOL COMPANY

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"You Can Count on WAK Counters"  
They are Rugged, Accurate, Dependable

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## WILLIAMS BANDING WORKS

Manufacturers of

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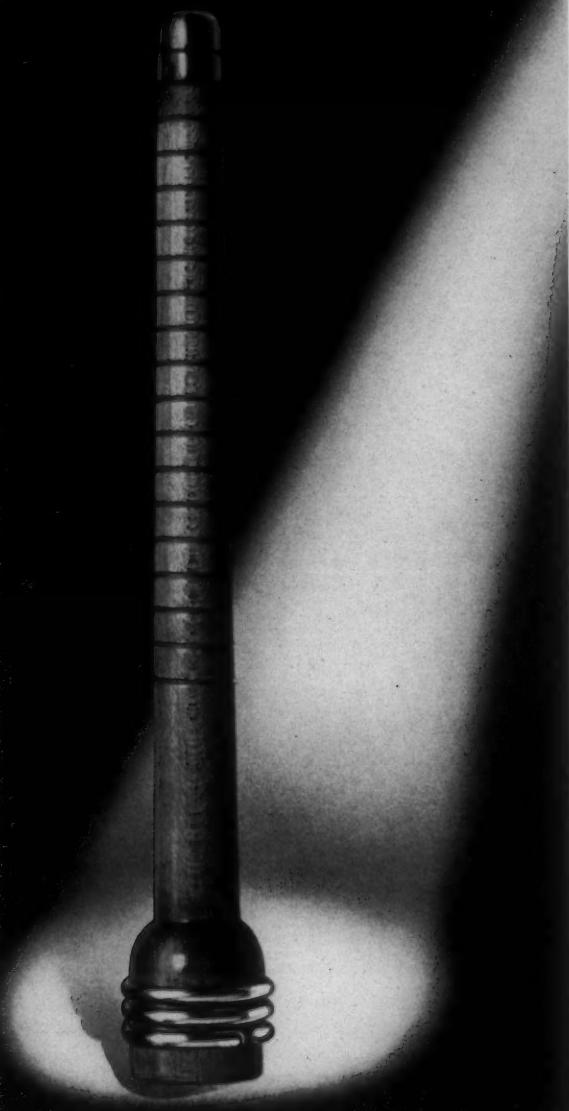
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## PRECISION BOBBINS

Precision Bobbins gauged for accuracy. Butts no smaller than 1.200", no larger than 1.215". Eliminate unnecessary mis-transfers and shuttle spring breakage.

If you are not acquainted, let us introduce Precision Bobbins to you. Samples promptly.

For uninterrupted production—  
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**NEW ENGLAND  
BOBBIN & SHUTTLE CO.**

George M. Hambleton, Gen. Mgr.  
NASHUA, NEW HAMPSHIRE

F. S. Elliott is proprietor and superintendent of the new Hildebran Hosiery Mills, Hildebran, N. C.

M. L. Church, of Charlotte, N. C., Southern representative of the Catlin Yarn Co., has been elected a member of the National Boy Scout Council.

E. W. Freeze, Jr., secretary and treasurer of the Commonwealth Hosiery Mills, has been elected president of the new Rotary Club at Randleman, N. C.

H. B. Kilgore, plant manager of the Brandon Mills, Woodruff, S. C., has been elected vice-president of the Rotary Club of Woodruff.

Adrian L. Shuford, Jr., president of the Adrian Hosiery Mills, has been elected president of the Shuford National Bank, Newton, N. C.

T. Manley Whitener, president and treasurer of the Whenball Hosiery Mills, Newton, N. C., has been installed as grand exalted ruler of Elks Lodge No. 1654, Hickory, N. C.

J. Dan Smith, for 17 years overseer of spinning at Georgia-Kincaid Mills, Griffin, Ga., is now overseer spinning and winding at Smithfield Mfg. Co., Smithfield, N. C.

Joe V. Moffitt has been elected president of the Dacotah Cotton Mills, Inc., Lexington, N. C., succeeding C. L. Chandler, who, it is understood, has sold his interest in the company.

**ROY CARD GRINDERS**

The American textile industry is faced with an enormous task with many hard problems to solve. You can cross off problem No. 1, your first important operation, by calling on us for repairs and maintenance of all types of card grinders.

Properly ground cards means better carding, saving in card wire, maximum production.

The quality of yarn cannot be improved after it leaves your card room.

B. S. ROY & SON COMPANY  
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A. E. Jury has been granted a leave of absence from his job as agent at the U. S. Rubber Co.'s Winnsboro, S. C., plant, to take charge of the construction and operation of a large synthetic rubber plant.

C. E. Ware, Jr., son of Chas. Ware, superintendent of Abernathy Yarn Mills, Statesville, N. C., received his wings in the U. S. Air Corps on June 23rd at, Phoenix, Ariz. After attending Guilford College, Lieutenant Ware served for some time as paymaster in the mills. He was married to Miss Eula Brown of Statesville on June 19th.

## OBITUARY

### MRS. WALTER WOODWARD

Greenville, S. C.—Mrs. Helen Louise Woodward, wife of Walter F. Woodward, of Curtis & Marble Co., textile finishing machinery, died here recently after two years of declining health. She leaves, in addition to her husband, a son, Lieut. Walden F. Woodward. Burial was in Worcester, Mass., the former home of the family.

### THOMAS HOYLE PHILLIPS

Newton, N. C.—Thomas Hoyle Phillips, 69, retired woolen mill operator, died suddenly at his home a few minutes after he had returned from a Hickory hospital after an operation.

Mr. Phillips established a woolen mill at Blackburn and later moved it to Maiden, N. C., where he was affiliated with the Carolina Mill. He leaves a widow and four sons.

### MRS. JAS. P. GOSSETT

Mrs. Sallie Brown Gossett, widow of the late Jas. P. Gossett, of Williamston, S. C., and Greenville, S. C., died on the afternoon of July 4th. Interment was on July 5th in the Gossett family burial ground at Williamston, S. C.

Of eight children born to Mr. and Mrs. Gossett, five are living: Benjamin Brown Gossett, of Charlotte, N. C.; Mrs. H. T. Crigler, of Greenville, S. C.; Ralph Gossett, of Greenville, S. C.; Mrs. Thorne Clark, of Lincolnton, N. C., and Mrs. R. I. Dalton, of Charlotte, N. C. Seventeen grandchildren and nine great-grandchildren survive. Of her 14 grandsons, seven are serving in the United States armed forces.

### WM. P. CARGILL

Gastonia, N. C.—Wm. P. Cargill, 56, who recently resigned as superintendent of the Pee Dee Mills at Rockingham, N. C., because of ill health, died at the home of his wife's father, C. S. Stowe, on July 13th.

Mr. Cargill was born in 1886 at Piedmont, S. C., the son of the late Mr. and Mrs. John H. Cargill. Early in life he began the study of textiles and soon became an efficient mill superintendent. He went to Gastonia about 1924 as superintendent of the old Loray Mill, at that time one of the largest cotton textile manufacturing plants in the South. It has since become the Firestone Cotton Mills. Mr. Cargill left Gastonia in 1928, shortly before

the strike of April, 1929. He went to Shelbyville, Tenn., as superintendent of a mill. Later he went to Huntsville, Ala., and from there to Sand Springs, Okla. It was from the latter place that he went to Rockingham in 1937 to superintend the Pee Dee Mills.

#### J. P. ABNEY

Greenwood, S. C.—J. P. Abney, 57, cotton mill executive and prominent business man here for many years, died of a heart attack at his home July 12th. He had been in declining health for some time. Mr. Abney was a native of Edgefield, now Saluda County, son of the late Joel R. Abney and Mrs. Nannie Clark Abney. After attending Wofford College three years he entered the banking business here and served as bookkeeper, assistant cashier, cashier and president of the Farmers and Merchants Bank and also cashier of the Bank of Greenwood.

His career as a textile executive began in 1919 and at the time of his death he was president and treasurer of Grendel and Panola Mills here, Anderson Mill at Anderson, Belton Mill at Belton and Courtenay Mfg. Co. at Newry. Mr. Abney is survived by his widow, the former Miss Susie Mathews, of this county; a daughter, Mrs. Brandon Smith, of Anderson; a son, John Sidney Abney, Greenwood; two sisters, Mrs. Mattie A. Hartzog, and Mrs. Henry K. Thayer, Greenwood, and one brother, J. Richard Abney, Anderson; one grandchild, John Richard Fulp, Jr., also survives.

#### EUGENE CROSS

Marion, N. C.—Eugene Cross, Sr., 68, founder and president of the Cross Cotton Mills here, died July 5th of a heart attack at his home after an illness of seven years.

Mr. Cross was a former Marion alderman, noted civic leader and philanthropist, and although confined to his home for a number of years, continued his management of the mills and activity in the First Methodist Church, of which he was chairman of the board of stewards.

He established the Eugene Cross school for children of his employees and of other families. He was a member of the board of trustees of the Marion General Hospital, to which he had contributed large sums of money. He also had constructed a swimming pool for use of the public.

Mr. Cross was a native of Scooba, Miss., the son of the late Jehu and Sarah Shotwell Cross. Interest in mechanical engineering led him to Gastonia to learn the textile business.

In 1902 he married Miss Kathleen Roans, of West Point, Miss. For some time he was superintendent of a mill there, then became manager of the Taylorsville Cotton Mills.

In 1916 he moved to Marion to organize the Cross Cotton Mills and in 1917 began operations with 3,000 spindles. The mills now operate 22,000 spindles 24 hours a day. In 1929 he organized the Eugene Cross Co., an allied plant of the mills.

Besides his wife, he is survived by two sons, F. R. Cross and Eugene Cross, Jr., of Marion; a daughter, Mrs. J. H. Tyler, of Kinston; a sister, Mrs. Roberta Geiger, of Jackson, Miss., and six grandchildren.



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# TEXTILE BULLETIN

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### SUBSCRIPTION

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

## Cotton at Alexandria

Another penalty for carelessness was narrowly averted when General Rommel was stopped just short of Alexandria, Egypt, that is, if he has been stopped.

More than three months ago we wrote United States Senator J. W. Bailey of North Carolina and asked him to, somehow, get through to the military authorities of Great Britain the suggestion that all cotton in northern Egypt, and especially that in Alexandria, be moved through the Suez Canal or to southern Egypt.

We asked Senator Bailey to call attention to the fact that Germany and Italy were desperately in need of cotton and that they should not be allowed to find cotton in northern Egypt if they captured that area.

We have no doubt that Senator Bailey passed on our suggestion but, from all accounts, the warehouses of Alexandria are today filled with cotton and although that cotton has not passed into the hands of the Nazi and aided them in their war effort, it almost became their property.

The failure of the English to move that cotton was another piece of carelessness and is entitled to rank beside the actions of Admiral Kimmel and General Short at Pearl Harbor.

We did our best to send a warning but realized that we do not cut much figure in military circles and that suggestions from us would not carry much weight with the brass hats.

A careful study showed us that about 1,600,000 bales of cotton will be raised this year in the Japanese occupied section of China and we knew how much that cotton would mean to Japan.

We had the temerity to suggest to the Economic Warfare Board that if boll weevils were gathered in Texas and were dropped by our aviators over the Chinese cotton fields, which are held by Japan, they would greatly reduce the yield but we got exactly nowhere.

We even called attention to the fact that there has never been any boll weevils in China and that the Japanese would not know how to prevent their multiplication but we doubt that even now there is a member of the Economic Warfare Board who knows the difference between a boll weevil and a June bug.

To people who are conducting a war, cotton is an extremely important article. Japan is assured of a crop of more than 1,600,000 and Germany has almost grabbed a large supply which was carelessly allowed to remain in Alexandria.

## The FBI

America could well afford to rise as one man and take off its hat to the FBI and its leader, J. Edgar Hoover.

So many Government departments have, in recent years, been taken over by men who are not only inefficient but of doubtful loyalty, that we recognize very few as entitled to the respect of citizens, but one department has, year after year, done outstanding work and that is the FBI.

We doubt that many Americans realize what a difference there would be today if our FBI had not been efficient.

The arrest of eight Nazi saboteurs, who were recently landed upon our shores equipped to destroy things which were vital to our defense, is really a minor incident when compared to some of these other activities of the men under J. Edgar Hoover.

They did not begin their work after Pearl Harbor but already knew the agents of our enemies and on December 8th moved upon them quietly but quickly.

The Japanese had planted in this country more than 2,000 agents, many of them former officers of their army, and had planned a great campaign of sabotage and destruction, but everywhere FBI men moved in upon them and before they could do any damage, all of the key Japanese agents were in detention camps.

Some day the story of the round-up of German and Japanese agents will be written and the public will realize why, in the midst of such a gigantic manufacture of war materials, there have been so few accidents (?) and so little destruction.

We take off our hat to J. Edgar Hoover and the FBI men.

## Near Scandal Over Synthetic Rubber

Jesse Jones is said to be largely responsible for the small stock pile of rubber in the United States today because, as chairman of the RFC, prior to Pearl Harbor, he denied the request of the Army for loans with which to purchase large supplies of rubber.

Jesse Jones' Rubber Reserves Corp., manned and controlled to a large extent by men who in civil life held positions with companies interested in Texas petroleum, have approved 31 contracts for big synthetic rubber plants, some of them to cost \$10,000,000, but with no expectation of obtaining synthetic rubber from any of them before 1944.

They refused to permit a Nebraska group, who could guarantee that they make equal quality rubber from wheat, to obtain 150 tons of steel although they asked for no Government funds and said that they could begin the delivery in four months.

They blocked every effort of the Publica Corp. of Philadelphia to obtain steel for buildings, although they were making high grade rubber in a small plant which they had erected and were in position to supply rubber in four to six months.

When Dr. Houdry, chemical engineer of Philadelphia, the man who developed the method of making high octane gas through a petroleum cracking process, discovered a process of making rubber from petroleum at about half the cost of the process for which the Texas plants were being erected, the most that he could obtain from the Rubber Reserves Corp. was a two-hour visit from a representative who was not interested enough to study the process.

The Sun Oil Co. and the Vacuum Oil Co. sent their engineers and, upon the basis of their reports, were willing to build plants but were not permitted to obtain the necessary materials.

The process which has been favored by the Rubber Reserves Corp. will

- (1) Require more than a billion of Government money.
- (2) Require 14 to 18 months to get into production as against 4 to 6 months for the other processes.
- (3) Require several times as much steel for buildings.
- (4) Require far more vital materials for the production of rubber than the other processes.

The Rubber Reserves Corp., although they were supposed to be working to secure a supply of synthetic rubber for the armed forces and the civilians of the United States, have favored the

process which would require the most Government money, the most steel and the use of the largest volume of essential materials.

Can it be a coincidence that many of the officials of the Rubber Reserves Corp. had been affiliated in private life with the process which has been favored to the exclusion of less expensive and quicker processes of the manufacture of synthetic rubber?

## A Builder of South Carolina

J. S. Plowden, writing in *The Observer*, Greenville, S. C., plays a well deserved tribute to the late John W. Arrington, founder of the Union Bleachery.

Mr. Plowden lists Mr. Arrington among the Builders of South Carolina and sketches his interesting career.

He also pays tribute to his three sons, John W. Arrington, Jr., R. W. Arrington and Nelson B. Arrington, who are civic minded and take the lead in many of the activities in their State and section.

## 123 Days

The next 123 days will have a vital influence upon the future of the world.

From July 15th to November 15th, at which time the cold winds of Siberia can be expected to sweep down over Russia and bring snow and ice which will, as last winter, check the advance of the Germans, there are 123 days.

If, when those 123 days have passed, Russia has not been entirely overrun and the Russian army has not been destroyed, Hitler and his generals will know that it is the beginning of the end because they cannot survive another winter and prepare to meet the avalanche of weapons of war which the United States will have placed in the hands of its soldiers and their allies.

The advance of Germany in Russia, within the past thirty days, makes the picture look dark and they may accomplish their purpose, but this advance has been at a far less rate than last year and Germany has paid a terrific price in blood and men and materials.

Ahead of them, are the Caucasus mountains, with difficult roads heavily fortified, and the sides of those mountains will be red with German blood before Hitler's banners wave from their peaks.

We know not what the next 123 days will witness but before the winds and the snows sweep down over Russia many men will die and the future of our world and our liberty may be decided.

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# DYEING AND FINISHING

## Army Cotton Covering Materials of Non-Clothing Nature

By GEORGE BROUN

### COMFORTER COVER CLOTH

**T**HIS title is for differentiation between cotton materials now being processed for military needs, which may be divided between essentially clothing and non-clothing materials.

A brief discussion of difficulties now coming up in the processing of cotton covering materials for non-clothing uses. These materials may be listed as follows. The terminology may not be exactly correct, but the textile finishing trade classifies them along these constructions:

1. Comforter Covering Cloth—Runs around 5 yds. per lb.
2. Mosquito Bars—Made in two constructions varying around 2.50 and 3.80 yds. per lb.
3. Mosquito Netting—Tricot Knit and Leno Weave—Runs around 11 to 11.5 yds. per lb.

The increasing importance of these processing problems now confronting the textile finishing plant officials and dyers of this country may be seen by the realization and needs for pertinent information as expressed in a recent meeting of the Piedmont Section of the American Association of Textile Chemists and Colorists, whereby they endeavored to carry out an open forum discussion on the processing of Defense Fabrics.

The plant official who conducted this open forum discussion was burdened with the necessity of using prepared questions which is not always conducive to wide-open discussion.

The writer observed this restraint and therefore toured the various reception centers after the banquet was over and the following discussion is based on one of the main technical subjects as discussed informally but very pertinently.

The type of goods under widest discussion was: "Comforter Covering Cloth," and the fastness test that required the most attention of the dyers were in the order of their apparent importance:

- (1) Cold Water Fastness
- (2) Weather Exposure

To familiarize the reader with these specifications, please see Quartermaster Corps P. Q. D. No. 17A—Tentative Specification, July 30, 1941.

Netting—Mosquito—Woven OD.

See Paragraph E. E.

#### *Detail Requirements*

**C**olor—The netting shall be evenly dyed an approved shade of olive drab and shall show good fastness when subjected to the following tests:

E-1a. *Fastness to Weather*—Samples to be exposed for 10 days.

E-1b. *Fastness to Water*—Test to be conducted as outlined in Federal Specification CCC-T-191. The use of sulphur dyes is prohibited.

#### *E-6. Finish.*

The netting shall be singed, well scoured, but not bleached, given a permanent finish of such a character as to make it resistant to slippage of the warp threads along the filling, and shall be sized to a character of finish equal to an approved sample. The permanent finishing materials shall not be appreciably removed when laundered three times in accordance with the procedure for cotton textiles given in Section XIV, Federal Specification CCC-T-191, nor shall any finishing materials subject to absorption and retention of chlorine from laundry bleach solution be used. See—Federal Specification for Textiles, General Specification, Test Method, No. CCC-T-191a.

#### XIII. *Color Fastness*

I. General method of evaluation—

Ia. When no standard sample has been established, the tested specimen shall be compared with the original material and rated on the following basis:

Good: No appreciable alteration of color.

Fair: Appreciable but not objectionable alteration of color.

Poor: Objectionable alteration of color.

The judgment of the inspector may be aided by comparison with material from former satisfactory purchases if these are available. Such material should be tested at the same time and in the same way as the material to be graded.

Ib. When a standard sample has been established, specimens from the material to be graded, and from the standard shall be tested simultaneously and in the same way and rated in fastness on the following basis:

Satisfactory: Equal or superior to the standard in fastness.

Unsatisfactory: Inferior to the standard in fastness.

(3) *Fastness to Weather*

A specimen of the material is exposed continuously for 10 days (unless otherwise specified) at an angle of 45° from the horizontal, facing south, on a roof or other unprotected place. The fading is judged by comparison of the exposed specimen with unexposed material that has been set aside for the purpose. When comparison is to be made with a standard sample, if the specimen fades distinctly less than the standard sample in some shorter period of exposure than the specified; it may be rated as of satisfactory fastness without continuing the exposure for the full period of time.

(6) *Fastness to Water*

A specimen of the colored material measuring about 2 by 4 inches is taken for test. Approximately 1 inch-square pieces of undyed wool, silk, rayon or bleached but not starched cotton cloth, as required to show staining, are sewed or otherwise firmly attached to it. The specimen is immersed for 1 hour in distilled water at room

temperature. The change in color, staining of the white material, and the discoloration of the water are considered in rating fastness to water.

Starting from these specifications as outlined from CCC-T-191a as tentative tests for cold water and weather exposure, the Quartermaster Officials have gradually changed their evaluation and test methods especially on the cold water fastness. Until now the cold water test has been practically extended from a 1 hour immersion test to a 3 hour test.

This continual experimentation with the cold water test gives the dyers, finishers and the mill officials the jitters, especially as Comforter Covering Cloth is contracted on a very low cost basis, and once a plant formula is set up; that plant must keep production at a high speed to make a reasonable profit.

If the dyer and plant officials must go into a huddle every day or so to adjust formulae of finishing procedure, low cost goods of this nature soon become a great burden and start creating deficits instead of a small profit.

So with these troublesome problems coming up, the dyers have worked out satisfactory formulae for the weather exposure test and have found that Fadometer light test are not satisfactory comparative test to use for weather exposure. On this matter of (Fadometer) light test, the Quartermaster Corps Officials confirm this point and have informed textile processing officials on this point.

Now as regarding the fastness test to cold water, the dyers and mill officials have had a bad case of "jitters" and rightly, for in many cases the original processed samples were approved, but gradually this and the evaluating methods used by the Quartermaster Corps have become increasingly rigid, thus catching many dyer off guard and causing the mill officials headaches with rejections on the finished material.

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Discussion with one of the most practical and shrewdest dyers brought out a very valuable recipe for any textile chemist, dyer or mill official to use: Read over your specification; if there is no comparative dyed swatch to make test against—just make your test method "tougher" than the Quartermaster Specifications—then you are always on fairly safe ground. That was sound advice, so to further illustrate this point of cold water fastness, he took a piece of finished dyed goods, folded a piece of bleached white unsized cotton cloth in it; then "worked" these goods for one hour in a beaker of tap water (temperature—summer—around 85 to 90° F.) If the white cloth showed staining from dyed shade when dried, then these goods were refinished until they passed this test. Furthermore, if there was a distinct coloration in the beaker where the goods were immersed and worked for one hour the dyer required the goods to be refinished.

Naturally with such precautions taken, this dyer's plant was practically free of rejection due to poor cold water fastness.

So you can see that the Quartermaster Corps have their side of this question, and it is only those plants that wish to "squeeze by" on a specification are usually the ones hardest hit.

There are various processing methods for the handling of the Comforter Cloth. These might be listed:

1. Jigg-Dyeing.
2. Pad-Jigg Dyeing.
3. Pad.

- (1) For the easy way of handling, the jigg method is very desirable as an evenly dyed goods may be obtained, but the time and dyeing costs are considerably greater plus low production.
- (2) The pad-jigg method of padding the color then running goods onto a shell and giving two or four ends in the jigg is just about as slow and expensive as the straight jigg method and require extra dye-house help for handling goods on a large production basis.
- (3) The ideal dyeing procedure is the padding method, but this is where the difficulties arise because a plant official will want to use high speed pads, and the color must have uniform exhaust rate plus freedom from "marking" while dyed and wet either on the fold or batched in a box.

Interesting observations noted have shown some of the most expensive fast-to-light direct color combinations as the poorest in meeting these rigid pad dyeing requirements. These color formulae tend to dirty the cloth guides, dry cans and show noticeable "endiness" or color variations throughout a color mix. This may be explained by the fact that these types of fast-to-light colors usually have low exhaust rates and therefore require a heavy amount of color in the preparation of the color mix in the pad box.

As one dyer expressed it, a majority of dyers and technical experts (better known as dyestuff demonstrators) have taken it as an insult to their profession and integrity

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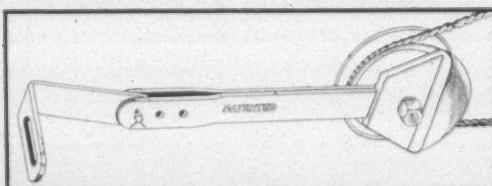
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to be sent on a direct color job as they considered themselves suitable only for vat or naphthol color demonstrations. So maybe that dyer hit the nail on the head; our leading finishing plant officials, dyers and dyestuff companies have not thought through clearly on this job of dyeing and finishing of Comforter Covering Cloth and the Quartermaster Corps will make our technical experts do some real study as this job can be done, and is being carried out successfully, inexpensively using selected direct colors that pass the necessary specifications, and the job does not require the elaborate pigment color procedure which is rather expensive for these cheaper goods.

### AATCC Annual Meeting Cancelled

At the last session of the Council of the American Association of Textile Chemists and Colorists, which occurred in New York City on June 27th, a resolution was unanimously adopted cancelling this year's annual meeting, which was scheduled to be held in Atlantic City on October 8 to 11, 1942. This step was taken at the suggestion of Joseph B. Eastman, director of the Office of Defense Transportation, in keeping with the Government's policy to eliminate all conventions which involved extensive traveling on the part of delegates. The council is glad to co-operate with the wishes of the Government in this respect but regrets that the technical program which was planned for the convention cannot be held, because it was to be devoted entirely to the technical aspects of the nation's defense effort insofar as the textile industry is concerned.

The council voted to continue the intersectional technical contest, which will be conducted by the publication of the various contest papers in the Official Proceedings of the Association. Each section's contribution will be judged by the staff of elected judges and winners will be announced in a subsequent issue.

### Elect George McCarty AATCC Unit Officer

Chattanooga, Tenn.—Presentation of two motion pictures on cotton textiles, a round-table discussion of current problems and election of a new secretary marked a meeting here of the South Central Section of the American Association of Textile Chemists and Colorists.

George McCarty, of Burkart-Schier Chemical Co., Chattanooga, was elected secretary to succeed Dan A. Torrence, Jr., who was called to active military duty shortly after the last quarterly meeting. Mr. Torrence, who was with the Ciba Co., is a first lieutenant.

Motion pictures shown were The Cotton-Textile Institute's sound film in natural colors, "Threads of a Nation," dealing with the importance of cotton in American life, and a film produced by Fruit of the Loom, Inc., dealing with the manufacture of cotton cloth.

### Report Mills Violating Federal Wage-Hour Law

Raleigh, N. C.—Out of 25 North Carolina textile mills investigated during June, 15 were found in violation of the Federal wage-hour law, the State Labor Commissioner reported.

Nine of the mills found violating provisions of the act made voluntary restitution of back wages of \$10,924 to 249 employees.

Shuford said 432 textile mills covering 140,328 employees had been inspected in the last eight months.

### Ed. S. Kempton Buys Stewart Machine Co.

Edward S. Kempton and associates have purchased the Stewart Machine Co., Gastonia, N. C., from the estate of the late W. Clyde Stewart, and will operate it under the name of Stewart Machine Co., Inc.

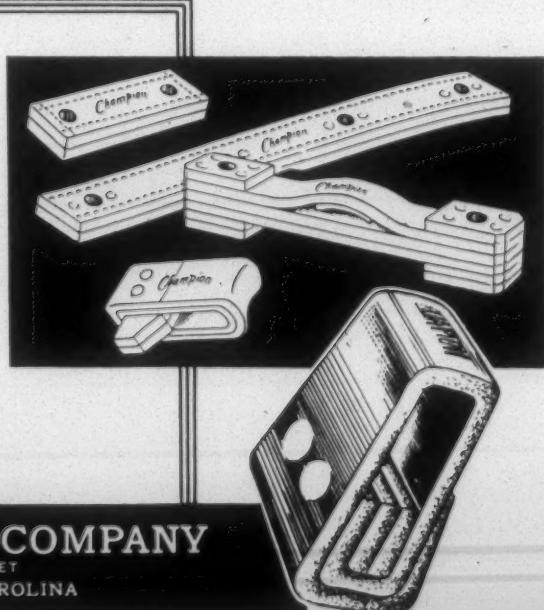
Mr. Kempton will act as secretary, treasurer and general manager of the corporation, and will continue to operate the plant to make ring-holders, bolsters, whorls,

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lifting rods, bushings, and special textile machine work. A substantial part of the production of the plant is on defense work.

The company owns and operates their own foundry in connection with the machine shop, and employs between 75 and 100 men.

This is Mr. Kempton's 25th year in the textile, textile machinery and allied lines. He now owns and operates the Kempton Parts & Spring Co., of Gastonia, and will continue to operate that business in addition to the Stewart Machine Co., Inc.

### May Dispose of Stocks of Burlap

The Textile Branch of the WPB has explained how a person owning frozen stocks of burlap may sell or use such burlap under Conservation Order M-47.

1. He may sell it to the Army, Navy or other agencies listed in Paragraph (c) (3) of the order without WPB authorization. Such an order need not carry a preference rating.

2. He may use it to fill orders rated A-1-c or higher for burlap, provided he is authorized to do so by WPB. In applying for such authorization, the burlap owner should state to WPB what the burlap is to be used for, the person or agency that placed the order, and the burlap preference rating which accompanied the order.

Both the above points refer to frozen burlap—that is, the unbroken bales of burlap over 10 bales that the order freezes in the hands of the owner.

Frozen burlap is different from stockpile burlap—that is, burlap set aside by importers under the order. Such burlap may be drawn from stockpile without WPB authorization by any person who holds a preference rating of A-1-c or higher for burlap.

### Fred Decker, Jr., Writes Article for Apparel Arts

Fred A. Decker, Jr., son of the Charlotte, N. C., representative of Textile Specialty Co., and now employed by American Viscose Corp. at Parkersburg, W. Va., as a textile engineer, has written a very interesting article for *Apparel Arts*. This trade paper previews authentic Esquire fashions, and as evidence of its class, it sells for \$1.50 per copy.

The article by Mr. Decker has as its aim the enlightenment of store managers, buyers, clerks, etc., on the new developments in synthetic fibers that they may come into contact with in clothing. Among the fibers mentioned, with their end use explained, are fiberglass, aralac, vinyon, nylon and rayon.

Mr. Decker is a graduate of N. C. State College Textile School, and is a member of Phi Psi, national honorary textile fraternity.

### WPB Textile Expert Resigns To Open Own Business in Capital

Washington, D. C.—Raymond G. Daly, who has been a senior priority specialist assigned to the Textile Division of the War Production Board since September, has resigned to establish in Washington a textile consulting business on his own account. His offices will be at 1024 Vermont avenue.

**O \* N Y X**

Many processors and finishers of textiles working on government orders are depending on Onyx products and Onyx chemists and technicians to meet specification and production demands. Rapidly changing conditions in all of the raw material fields make very necessary the closest cooperation between Onyx technicians and the textile plants to keep production going. Mills and finishing plants are urged to consult with us on their processing and finishing problems. Onyx research and production facilities are at your service. We are helping others, perhaps we can help you. Your inquiries are solicited.

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## Weevils Not Heavy in Delta

State College, Miss.—Although boll weevils are generally distributed over most of Mississippi, the infestation is considerably less than 1941, according to the State Plant Board. Inspectors of the board and Government entomologists examined 109 farms in 43 counties in one period, finding weevils on 68.

On 34, weevils averaged 88 per acre, as compared with 96 per acre a week ago, and 384 per acre on this date last year. The remaining 34 infested farms had squares large enough for puncturing with an average of 7

per cent infestation as compared with 17 per cent last year.

Few infestations were found in the counties along the northern border of the State, and in some Delta counties, but elsewhere the infestation was rather general, though light. In Washington County weevils averaged four per acre as compared with 40 per acre in 1941. Only on one farm out of the 109 was the infestation high enough to warrant poisoning.

The importance of making careful infestation counts before poisoning was emphasized by Dr. Lyle, who termed it unpatriotic to waste poison this year when it is so widely needed.

## British Fear Loss of Cotton Stocks

London.—British textile interests are anxiously following the latest reports on the battle for Egypt—mindful of the possibility that the Egyptian cotton crop could be "scorched" out of circulation.

These trade circles said there was a considerable carryover from previous crops in various parts of Egypt which would be a great prize for the Axis, who are known to be very short of the natural fibre.

(The New York Cotton Exchange said the carryover of Egyptian cotton in public storage at Alexandria alone amounted to 900,000 bales on July 31, 1941. New York cotton sources estimated that the fate of 2,500,000 bales of long staple cotton was in question because of the battle for Egypt).

Meanwhile the organization of planned production of cotton cloths for the "utility" trade was getting into stride, and "directed" orders were being sent by the Cotton Control to spinners and manufacturers of the yarns and fabrics concerned.

Manchester reported that ordinary commercial buyers made little impression on their order books. Shippers were pressing for a decision on frustrated goods. The labor supply was moving but not sufficiently to enable existing commitments to be worked off comfortably. Demand still was mainly for goods woven from coarse and medium yarns.

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WANTED—Position as Master Mechanic for cotton mill or bleachery. Can handle steam or electric and general maintenance. Best of references. Not subject to draft. Address "L. P. C.," c/o Textile Bulletin.

SUPERINTENDENT wants connections with yarn mill or plain weave mill. Long years real practical experience; can handle any class of help and positively produce at satisfying cost. Best of references. Work any grade of cotton. Age 49; have family; strictly clean habits. I. C. S. graduate. Reasonable salary. Can increase efficiency of help and machinery. Address "Producer," c/o Textile Bulletin.

SUPERINTENDENT Available—20 years in mill; 10 years as superintendent, plain and fancy weaving, all types blends and synthetics. A-1 references. 38, married. Prefer Carolinas. Consider overseer's job large mill. Address "C. Y. J.," c/o Textile Bulletin.

SUPERINTENDENT—Age 35; 3-A. Plain and fancy weaving; finishing; cost. 17 years' experience. Address "F-M.," c/o Textile Bulletin.

SUPERINTENDENT wants change. Now employed. Very best references. Can get quantity and quality at low cost. Address "S-R," c/o Textile Bulletin.

OVERSEER CARDING wants change. Now employed as carder; experienced on all makes of machinery. Good reference. Address "C-R," c/o Textile Bulletin.

WANTED—Position in mill cotton department. Broad experience in buying, classing and hedging. Now employed and with present organization past fifteen years but desirous of making change. Can furnish best of references. Address "Box G-4," c/o Textile Bulletin.

WANTED—Position as Cloth Room Overseer; age 33, now employed but desire change. Married, sober, have one child. 15 years' experience with twills, sheetings, jeans. Prefer the Carolinas. References upon request. Address "Overseer," c/o Textile Bulletin.

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## Cotton Good Markets

New York.—Practically all branches of the cotton gray goods market have been quiet for several weeks, and little significant action is expected for at least some time to come, according to market interests.

Specific ceiling prices have been imposed on a list of 1,700 cotton goods items including both gray and colored items in Amendment No. 6 to Price Schedule 118, issued by the Office of Price Administration. The amendment is the most comprehensive yet issued in providing the industry with exact maximum values to take the place of the original 118 schedule, issued in April, and which required mills to go back to their own selling prices of last summer and adjust them to raw material cost changes.

The present schedule is devoted heavily to pricing of blankets, on which the effective date is May 4th last. Also a large section goes to terry woven goods and towels, while various colored goods items such as corduroys, whipcords, and cottonades are also included. In addition, specific prices are provided for carded yarn fancies including shirting fancies, certain gabardines and dobbies, drapery fabrics, brassiere cloths, dotted swisses, waffle cloths, piques other than those covered by Schedule 35, seersuckers, carded lawns, pongees, marquisettes, umbrella cloths, raincoat twill, and narrow and heavy dobbies. On all these goods the effective date is July 13.

Whether production can be increased further, or can even be maintained at its present level, is a matter for conjecture, it is reported. With heat levels high throughout the South, workers who have been working six and sometimes seven days a week are not up to full production, and cases have been noted where workers are reporting only four or five days.

Another factor that may affect production is that after forced production schedules over a long period have resulted in an inevitable reduction in machinery efficiency. Overhauling programs have been upset, materials are slow in arriving at the mills, and the draft has been taking an increasing number of the better productive workers.

Generally, the textile industry has been affected less than a great many industries by the war. There is little likelihood of serious displacement, and many marginal mills that could not stay in business in normal times are showing a profit now.

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38

July 15, 1942 • TEXTILE BULLETIN

## Cotton Yarn Markets

Philadelphia.—Of interest to cotton yarn manufacturers, particularly the combed yarn branch of the industry, is the fact that practically all the Yazoo-Mississippi Delta crop this year will be marked as such. This should go a long way toward clearing up a situation that has caused some concern in the past, when irrigated cotton has been shipped into the Memphis area, the tags destroyed or changed, and has reached the mills for Delta cotton. That there is definitely a difference in running quality of the irrigated has been definitely shown in reports from the U. S. Department of Agriculture.

The statement from F. L. Gerdes, chairman of the Delta Council Bale Identification Association, is as follows:

"We have already sold 600,000 tags for the present season and many have been delivered. During the month of July a great effort will be made to distribute an additional 100,000 tags which practically will mark the entire Delta crop. We are well satisfied with the result and the success that we have enjoyed this year assures the continuation of the identification program," Mr. Gerdes said.

"This year because of the great volume of business a reduction has been given on the price of the gin tags. This reduction totals more than \$2,500. No charge is being made this year for the imprinting of the gin name and a reduction of \$2 a thousand has been given on any quantities of tags over the first 1,000. This reduction applies only to orders imprinted with one gin name. In addition to the above reductions a 5 per cent discount is given on the cost of the tags when the bill is paid within 30 days of delivery," he explained.

The Delta Council Bale Identification Association is a co-operative of Delta ginners.

Nearing the completion of the first half of July, usually one of the quietest periods of the year in the sale cotton yarn business, distributors and spinners report that the industry continues in a sound condition with new buying exceeding the May and June estimates.

The majority of spinners state that they entered the second half of 1942 with relatively few scheduled deliveries being delayed and that among regular consumers, little or no price resistance has been experienced.

Consumers', dealers' and yarn mills' stocks are by no means unwieldy, and finished cotton items made from sale yarns have, for the most part, been in steady distribution. There has seldom been less complaint than now, as to collections, etc.

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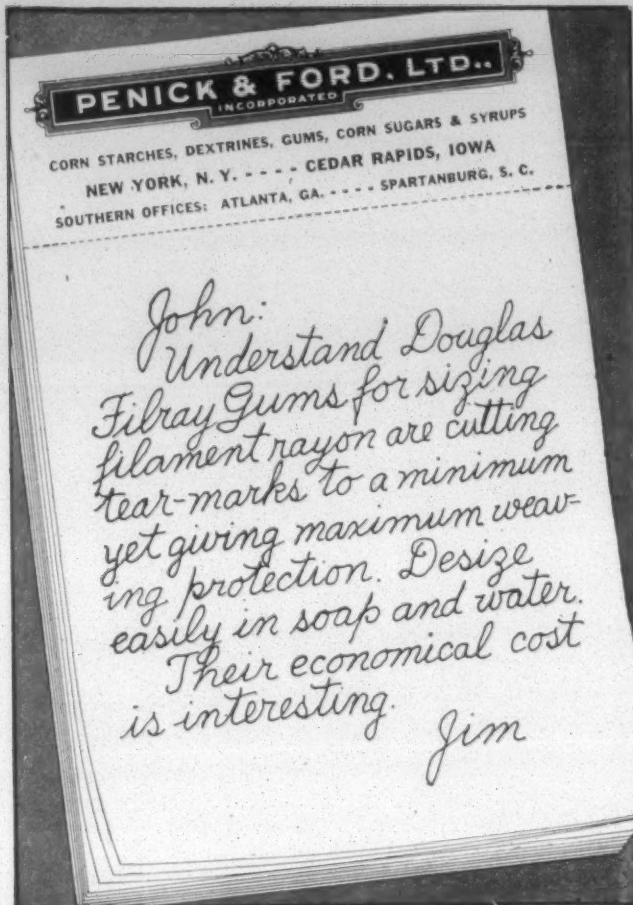
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**STERLING RING TRAVELER CO.  
FALL RIVER, MASS.**

## Factors Affecting Twist Per Inch in Spinning

(Continued from Page 14)

100" of yarn would then have actually applied the twist to only 93", thus giving more turns than had been planned.

If contraction were the only modifying factor influencing turns per inch, full allowance would have to be made for it. However, there are actually two other influencing factors which tend to offset the effect of contraction. These are (1) traveler lag and (2) tape slippage.

Therefore, in addition to the normal mechanical arrangement of the spinning frame there are three variables which govern the number of turns per inch actually spun into a yarn:

- (1) *Twist contraction.* This varies with the twist multiplier employed and tends to increase turns per inch.
- (2) *Traveler lag.* This varies with the twist per inch and the bobbin diameter. Its effect is to reduce twist.
- (3) *Tape slippage.* This will vary with local conditions and its effect will be to reduce twist.

It is obvious, then, that the normal method of making twist calculations will give correct results *only* when items (2) and (3) exactly offset the influence of item (1).

### Traveler Lag

It has already been shown how contraction increases twist and, no doubt, mill men in general are familiar with this fact; but we are of the opinion that there is much less general knowledge in regard to the part that traveler lag plays in the matter of twist insertion.

Perhaps the best way to bring out the facts clearly is by an example:

Let us suppose that a mill is spinning 20s warp with a twist multiplier of 4.60. The spindle speed is 9375 R.P.M. The diameter of the empty bobbin is  $\frac{15}{16}$ " and the full bobbin has a diameter of 2".

The front roll speed, neglecting twist contraction,

9375

would be  $\frac{9375}{4.60 \times 20 \times 3.1416} = 145$  R.P.M.

Inches per minute delivered by front roll =  $145 \times 3.1416 = 456"$

Circumference full bobbin =  $2" \times 3.1416 = 6.29"$

Circumference empty bobbin =  $\frac{15}{16}" \times 3.1416 = 2.95"$

R.P.M. of traveler required for winding on full bobbin

456

=  $\frac{456}{6.29} = 72.5$  R.P.M. (Traveler lag)

R.P.M. of traveler required for winding on empty bobbin =  $\frac{456}{2.95} = 154.5$  R.P.M. (Traveler lag)

In other words, instead of 9375 R.P.M. available for inserting twist when spinning on the bare bobbin there

will be only  $9375 - 154.5 = 9220.5$  R.P.M. On the full bobbin the revolutions available for inserting twist will be  $9375 - 72.5 = 9302.5$ .

Let us examine what this means in terms of twist per inch. The desired twist was  $4.60\sqrt{20} = 20.60$  T.P.I.

9302.5

The twist on the full bobbin would be  $\frac{9302.5}{456} = 20.40$

456

9220.5

T.P.I. The twist on the bare bobbin would be  $\frac{9220.5}{456} = 20.20$  T.P.I.

456

This illustrates clearly the fact that the twist in the yarn at the beginning of the bobbin is less than on the outside of the bobbin. The average twist would be 20.30 or a decrease of 1.46% from the twist desired.

While this is not a very large amount in this particular case, coarser yarns with less twist and a smaller relative bobbin diameter will show a much higher percentage of reduction. In the case of 2s knitting yarn with a twist multiplier of 2.90, a spindle speed of 2600, and a 1 1/8" bobbin diameter traveler lag will effect twist approximately 5%.

#### Tape Slippage

Tape slippage should not exceed 2%, and where the tapes are in good condition, the tension is correct, and the proper diameter of whorl is used, the slippage would probably not be more than 1%.

In the case of the example cited, Item 1 is 7%, Item 2 is 1.46%, and Item 3 may be assumed to be 1%. The net effect upon the twist inserted will then be [7% - (1.46% plus 1%)] or 4.54%. Since this represents an increase over the desired twist, it will be necessary to modify the twist gear by this amount.

If the twist constant for the frame is 1069.51, the ordinary method of calculating the gear would be  $1069.51 \div 20.60$  T.P.I. = 52 gear. However, it is now obvious that to obtain the desired twist it would be necessary to use a gear having 4.54% more teeth, or,  $52 \times 1.0454 = 54.36$  (54).

#### A Practical Method

Of course, it is not to be expected that mills will go through all of the calculations we have described in order to determine their twist gears, and in many cases a variance of 4% or 5% from the standard twist would not be too objectionable. However, there is a method by which these factors may be taken into account that will prove quite practical. The gear is calculated in the customary manner and then the yarn which has been spun is checked for actual turns per inch with a twist counter. Suppose, for example, that a 52-tooth gear has been used and the twist per inch actually averaged 21.50. Then the actual twist constant of the frame would be  $52 \times 21.50 = 1118$ . This actual twist constant takes into account all of the factors affecting twist per inch and, unless the twist multiplier is changed materially, the use of this figure will give more accurate results in figuring twist gears than will the use of the mechanical constant of the frame.

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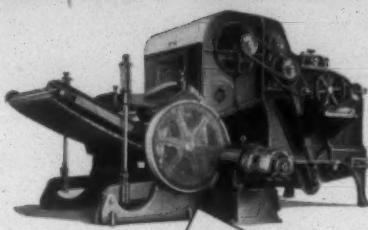
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## Cotton-Textile Institute Takes Part in a Quartermaster Exhibit

The hundreds of cotton products used to clothe, equip, house and transport the armed services will be displayed as part of the Quartermaster Corps exhibit accompanying the War Show now touring the country, according to the Cotton-Textile Institute.

Thus far the War Show has attracted thousands of spectators in the cities in which it has been shown. The show will tour the major cities of the country between now and October. It is planned to keep the exhibit intact for a second winter tour and for showings at selected public events such as the big trade fairs held each autumn in the South and West.

In accepting the exhibit for the Quartermaster Corps, Major General E. B. Gregory stated: "It with great pleasure that I learn that details have been worked out for the inclusion of the Cotton-Textile Institute's display in the Quartermaster Corps exhibit with the Army War Show.

"I feel that this presentation by the industry to the Quartermaster Corps is a further evidence of the fine spirit of co-operation and helpfulness which has marked all of our relationships with the members of your organization. Your display will be of great assistance in showing our people the truth of our frequent statement that the American soldier is the best clothed and best equipped fighting man in the world."

The show, now playing in Pittsburgh to capacity houses at the Pitt Stadium, will next proceed to Akron, Ohio, and then to Detroit, Milwaukee, Minneapolis, Omaha, before opening in Chicago on September 2nd for a ten-day stand there.

## Army Makes Temporary Substitution of Cotton Duck for Webbing in Many Equipment Items

Although cotton duck isn't too easy to obtain, it is not as scarce for immediate Army purposes as webbing, which is a durable, narrow width cotton fabric with a steadily increasing variety of uses.

Therefore, according to the War Department, plans are underway to substitute cotton duck temporarily for webbing in many important items of soldiers' equipment. These include cartridge belts, waist belts, field bags, first aid packets, ammunition pouches, dispatch cases—items which normally are either made entirely of webbing or utilize its various types to a great extent.

Probably, says the Quartermaster Corps, which buys fabrics for the Army, this situation will clear up in the near future and webbing will be used once more for making the above specialized items. However, for at least two or three months heavy duck will "pinch hit" to an important degree. Already alternate specifications have been drawn up for cartridge belts, Browning rifle belts, first aid packets and similar items, thus permitting the use of available heavyweight duck to replace critical webbing wherever necessary.

Of course, this substitution is of a temporary nature, but it demonstrates the fact that Army ingenuity can solve puzzling problems which threaten to slow down the victory effort.

Ironically enough, just prior to the recently encountered difficulty in obtaining webbing on a large enough quantity basis for Army use, private industry had developed web-type fabrics that were the best in history. These, made on narrow width looms, provided heavy serviceability and took up a minimum of space while imparting maximum strength—exactly the qualities the rigid Quartermaster Corps specifications called for. In addition the new web-weaves allowed enough elasticity to serve as shock absorbers in "soaking up" the bumps and knocks that hard-working web items encounter in the normal Army scheme of things.

Another ironical fact, in view of the present situation, is that in peace time the normal demand for webbing has never been very large, perhaps because the fabric lacked eye-appeal to be exploited on a large scale. But today, with the Army's procurement program running into enormous figures, it is easy to imagine the urgent demand for webbing. The fact is that private industry, with not enough narrow width looms available, has been unable to meet the quantities and delivery dates called for. Thus, heavy duck will have to serve as a temporary stop gap until production of webbing catches up with the demand.

#### Cotton From Delta Will Bear Markings

Stoneville, Miss.—Six hundred thousand bales of Mississippi Delta cotton will bear the official identification marker of cotton produced in the Yazoo-Mississippi Delta, it was announced by F. L. Gerdes, chairman of the Delta Council Bale Identification Association.

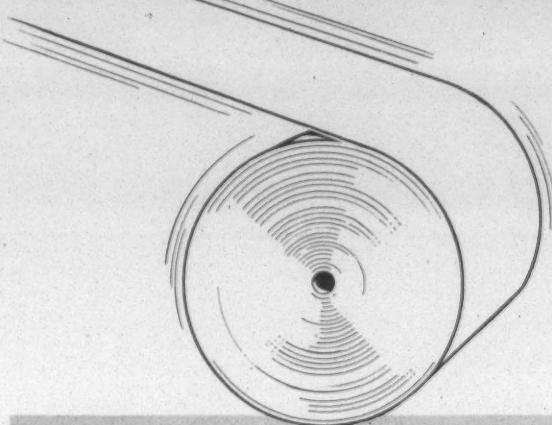
"We have already sold 600,000 tags for the present season and many have been delivered. During the month of July a great effort will be made to distribute an additional 100,000 tags which practically will mark the entire Delta crop. We are well satisfied with the result and the success that we have enjoyed this year assures the continuation of the identification program," Mr. Gerdes said.

"This year because of the great volume of business a reduction has been given on the price of the gin tags. This reduction totals more than \$2,500. No charge is being made this year for the imprinting of the gin name and a reduction of \$2 a thousand has been given on any quantities of tags over the first 1,000. This reduction applies only to orders imprinted with one gin name. In addition to the above reductions a 5 per cent discount is given on the cost of the tags when the bill is paid within 30 days of delivery," he explained.

The Delta Council bale Identification Association is a co-operative of Delta ginners.

Officers and directors of the Association are: Walter Sillers, president, Rosedale; F. L. Gerdes, chairman, Stoneville; Bill Connell, Clarksdale; J. S. Williams II, Yazoo City; D. Howard Deane, Heathman; Clarence Dorman, Starkville; A. F. Toler, Scott; Douglas Brooks, Memphis; Hugh L. Gary, Greenwood; W. M. Garrard, Greenwood; Leon Bramlett, Clarksdale, and W. K. Anderson, Clarksdale.

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Exsize contains no acids, alkalis or harsh chemicals to injure delicate fabrics. Its gentle, natural action leaves cloth perfectly prepared for bleaching, dyeing and sanforizing.

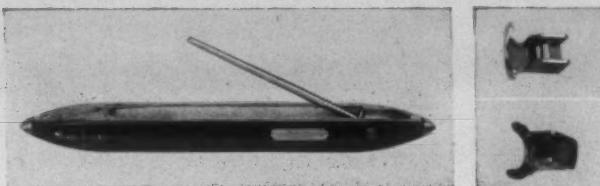
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## McClure-Howell New Cotton Firm

Cullman, Ala.—McClure-Howell, a new cotton firm, has opened offices in the Oscar Fischer Building. E. H. McClure was formerly with the Anderson-Clayton Cotton Co. and F. M. Howell was formerly in the lumber business here.

## Cotton Industry's Future Held To Rest On Research

Washington, D. C.—If the cotton industry is to hold its position in the future as a major industry, scientific research must be intensive in several major fields, D. F. J. Lynch, director of the Southern Regional Research Laboratory, U. S. Department of Agriculture, said in an address prepared for the Second Inter-American Conference of Agriculture, at Mexico City.

Mr. Lynch outlined these fields of research and pointed to some of the new uses of cotton developed in recent years. "The present war prosperity, shared by all branches of the cotton industry, tends to obscure the real conditions," he said. "When the war is over, competition from other fibers and products will be intensified."

Mr. Lynch emphasized the need for three lines of research on lint cotton: (1) on the chemical and physical properties of the individual fibers, (2) on the mechanical processing of cotton and its manufacture into various products, and (3) on chemical finishes for cotton products. He said that most cotton products in use today were developed through trial and error and not as a result of scientific knowledge of the fibers of different varieties and of use requirements.

Calling attention to the broad cotton fiber and cotton-seed research program of the Southern Laboratory, Mr. Lynch mentioned a few of the new and improved cotton products developed as a result of research work by various organizations in many fields. Some of the new developments listed are an inexpensive cement shingle using cotton fabric as a reinforcing membrane; a new method of making cotton pile fabrics for automobile and furniture seats; a new process by which cotton webbing and resins are used to form felts for industrial use; a new way of making disposable towels; wrinkle-resistant finishes; flame-proofing and water-proofing treatments to increase serviceability of cotton products.

Other laboratory cotton research objectives of war importance, Mr. Lynch said, are: Plastic coated or impregnated fabrics for replacing rubberized fabrics; an unlined cotton fire hose to replace linen hose of the same type; improved mesh fabrics for use as a base for non-shatterable transparent plastic substitutes for window glass; and the development of cotton products to replace those made from certain imported fibers which are difficult or impossible to obtain.

Research efforts on products of cottonseed include development of adhesives for plywood, paper-coating material to supplement casein, synthetic wool-like fibers, modified cottonseed oil to replace olive oil in the textile industry and palm oil in the tinplate industry and to replace certain imported waxes.

## The Army Depends On Cotton Goods

(Continued from Page 7)

a year. In other words, the industry's contribution to the war effort alone at this time amounts to about 5,000,000 bales per annum. If mills succeed in stepping up production to still higher levels, it will be an easy matter to move above the 12,000,000-bale mark. In any event, consumption by domestic mills this year is likely to be in excess of the American crop for the present season. During the last war consumption ranged between 6,500,000 and 7,500,000 bales per annum.

### Soldier's Use of Cotton Goods

"From the day he enters the armed services until he returns to civil life, the American soldier is veritably surrounded by cotton. In many instances, his home while in training is a cotton canvas tent. When on field duty a cotton pup tent, rubberized cotton poncho and sleeping bag covered with a water repellent fabric protect him from the elements. In barracks he wears cotton night clothes, sleeps between cotton sheets on a cotton stuffed mattress covered with cotton ticking. His pillow is of cotton. Under his bed or behind it are two cotton barrack bags which contain all of the possessions he is permitted to have.

"Awakened at dawn, he washes himself in all probability in a folding cotton basin, dries himself with cotton towels. The shorts, undershirts and socks he wears most of the year are of cotton. If called upon for fatigue duty, he dons a coverall and cap made of durable cotton materials such as denim or twill. While at work in the kitchen he is surrounded by butchers, bakers and cooks in white aprons made of cotton fabric that can withstand innumerable washings. Many of the vegetables and foodstuffs he handles come packed in cotton bags.

"On dress parade most of the year he wears a uniform of combed twill which has been described by more than one authority as the best fabric ever devised for army wear. In fact, Australians were so impressed by the appearance of American soldiers in cotton uniforms that their government has decided to clad its own troops in similar materials.

"When called upon for sentry duty in the rain, your American soldier finds protection in a specially treated cotton raincoat which can be folded into a bundle about the size of the average tobacco pouch. Once rubberized, these coats are now given a special oil treatment. In the tropics, almost every article of clothing that he wears is of cotton. In arctic climes, tightly woven windbreakers, cottons dyed green on one side and bleached white on the other, not only insulate him from the numbing cold but afford camouflage against a background of snow or ice or green pine woods.

"The knapsack he carries, now known as a combat kit, in which are his trench tools and iron rations, is of stout cotton duck while his canteen is covered by the same material. Even the wool garments he wears have cotton pockets, interlinings and trimmings and many are made of a mixture of wool and cotton yarn. His shoes are lined with cotton twill or drill and his leggings are of cotton canvas. The insignia on his sleeve is cotton and so are his stripes, if he has any.



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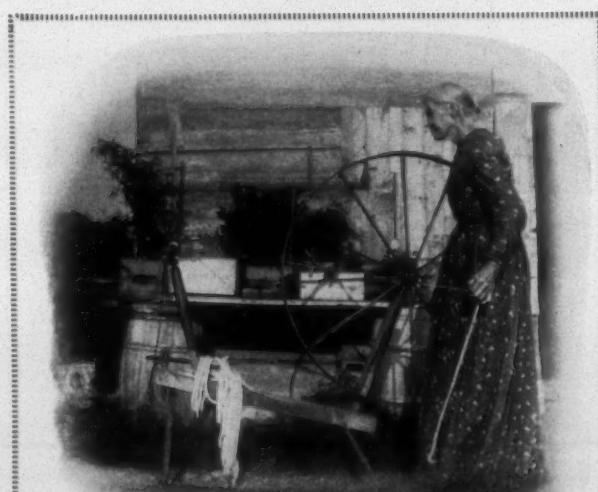
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"The statement has been made and never disproved that an army moves on cotton and it is borne out by the fact that tires are a union of rubber and cotton. In modern warfare, soldiers no longer march long distances but are carried to the scene of battle in trucks which contain upwards of sixty pounds of cotton in the forms of tires, chafer fabrics, head linings, insulation and so on. Most army trucks are covered with cotton tarpaulin. The men who drive them and repair them wear specially designed mechanics' suits of strong cotton materials 'that can take it.'

"While on the march an army's dependence upon cotton is great. Field kitchens and hospitals are frequently housed in cotton tents. The average field hospital carries large quantities of cotton material in the form of bandages, absorbent cottons, adhesive tapes and the multiple cotton products developed in recent years that have contributed so much to the pronounced stepping up of national standards of hygiene and cleanliness. Ambulances are equipped with cotton stretchers and first aid kits that contain a wide assortment of cotton bandages and similar items. In fact, what are known as cotton surgical or health supplies are so important to the nation at this time that steps have been taken not only to provide our armed forces and our allies with these necessities but also to make certain that supplies for civilian use are adequate since the nation is determined to prevent a repetition of the influenza plague that hampered our war effort so much back in 1918 or the spread of any plagues originating in the war-torn countries of Europe and Asia where whole populations have been uprooted and standards of sanitation have collapsed.

"Cotton covers protect artillery when the army is on the march and miles of camouflage cloth are used to conceal the big guns after they are wheeled into firing position. With jute scarce, cotton sandbags are being used increasingly to protect gun positions and will be of value in trench warfare in the event that the war of movement is succeeded by a war of position. Conversion Order L-99, which transferred thousands of looms to the manufacture of essential bagging materials, also provides for adequate supplies of camouflage cloth and sandbag materials.

"One of the new and important uses which the second World War has created for cottons is in the manufacture of the tough and durable fabrics which go into the construction of collapsible rubber boats. The material is made of combed heavily plied yarn which has been mercerized and gassed. The fabric, of course, is rubberized. The result is a material which is said to have the tensile strength of steel, will not rip or tear, and still is light enough so that collapsible boats made of it conserve weight and when deflated can be stored in small space, in airplanes, boats or army trucks. Pontoons have been made of this material as well as boats used to ferry streams and carry out ship-to-shore landing operations.

"Somewhat similar products of cotton industry ingenuity are the bullet proof gasoline tanks which bear two thicknesses of heavy cotton weighing three pounds to the square yard and are interlined with a newly-developed self-sealing material.

"Cartridge cloths and powder bags, formerly made in the main from silk, are now being made of cotton fabrics which have been specially developed and treated to achieve rapid burning and minimum ash content."

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## Reminiscences Of Ye Olde Cotton Factory

(Continued from Page 12)

Briefly stated: The blade beater was of high grade steel, usually two blades 2 inches wide by  $\frac{3}{8}$  to  $\frac{1}{2}$ -inch thick and about 40 inches long, and supported by a steel shaft about  $2\frac{1}{2}$  or more inches in diameter, by a sufficient number of arms or "spokes" fastened to shaft and blades and placing the blades 14 to 18 inches apart and exactly opposite each other to insure a perfect balance at a speed of 1,000 to 1,200 revolutions per minute.

The beater was set to about  $\frac{1}{4}$  in from the delivery (to beater) roll, enabling the beater blades to knock out the foreign particles in the cotton coming through the rolls, such as pieces of cotton burr, sand, leaf parts, etc., and at the same time distributing the sheet of cotton from the beater box on to the condenser.

The condenser was of a screen wire cylinder about 18 or more inches in diameter and 40 or more inches long, and ran in pairs, top and bottom. A high speed fan was placed in the frame of each machine to produce a sufficient air pressure for driving the cotton from the beater to the condenser to be pressed into a proper state for the building of the lap, which was the objective of each of these machines.

Naturally this air-pressure system called for an exhaust, which was in the form of tin or galvanized sheet metal pipes about 16 inches in diameter running from air chamber of lapper to dust chamber under floor of picker room—altogether, quite a satisfactory arrangement at that period.

Beginning with a new century, the year 1900 found the cotton manufacturing industry a most encouraging enterprise, insomuch that a gradual eagerness to expand appeared throughout the entire district.

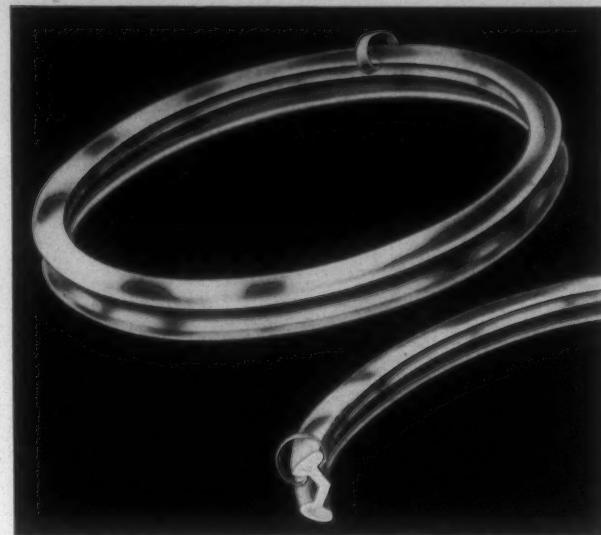
The new organization, in most cases local capital and management, began to experiment with the idea of beginning with, say, 10,000 spindles with the other equipment to balance, building for just enough floor space for that amount of machinery, leaving the foot end (the end away) boarded up so that at some future time enlargements could be made as progress and conditions might permit.

Quite a number of the most successful and some of the very largest mills operating today began on a small scale and have built up through the years to the present A-1 standards so prevalent over the whole area.

Moreover, demand for greater varieties in fabrics increased, yarn numbers were adjusted to meet all requirements for cloth weights and weavers, the popular numbers 20s to 24s formerly used in the 3.00 yard standard sheetings during the previous decade, were largely being replaced with finer numbers, 30s to 46s for print goods, shirtings, sateens and fine sheetings a wider range of weights running from 3.50 to 6 yard goods.

These print cloths were shipped to distant printing and finishing plants, thence to all the markets wherever "best quality" fancy dress goods were sold in all the most beautifully desirable and attractive patterns and colors at the designers' command.

Even at this early stage of the game an astonishing number of new inventions and improvements in cotton machinery and its auxiliary appliances had been brought into service, rendering the former tasks of the operatives



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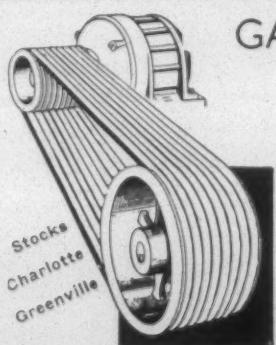
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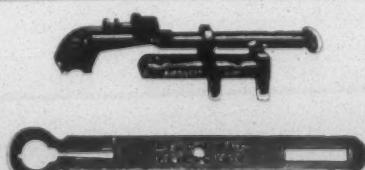
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much easier to perform, and creating a substantial speeding of output.

A most admirable attitude on the part of the builders of textile machinery was very clearly indicated in the form of good-will and a healthy co-operation in every transaction, often going to unreasonable lengths to supply the needs of the customer.

They were always eager to work out new ideas, inventions and improvements, give advice, encouragement and assist with problems.

Reiterating that human achievement is the reward of honest-to-goodness human effort, which has ever been the goal aimed at, and though another generation carries on today, enjoying the benefits too numerous to compute, many of them descendants of the old honored pioneers who helped to make it possible, may the entire textile personnel of this year 1942 give them due credit.

**Certain Fabrics and Sellers Exempted From Maximum Price Regulation No. 127**

(Continued from Page 10)

Any person selling necktie fabrics also shall file his name and address with OPA certifying that only such fabrics as are sold exclusively to necktie manufacturers will be sold under the exemption provided.

The following classes of sellers are exempted from the operation of Regulation 127:

(1) Furrier suppliers, engaged in supplying to persons who manufacture, alter and repair fur coats and jackets, the lining material and other supplies required by such persons.

(2) Custom shirtmakers' supply houses, a small group of merchandising establishments engaged in supplying custom shirtmakers with the materials necessary to their operation.

(3) Women's shoe fabrics suppliers.

(4) Tailor trimming stores which supply finished piece goods in cut lengths of specified yardage and other supplies to tailors engaged in the production of individually ordered items of apparel or in their repair and alteration.

(5) Dressmakers' supply houses.

(6) Milliners' supply houses.

In exempting these sellers and placing them under the General Maximum Price Regulation, the Administrator found that the costs of operation of these establishments are such that the regulation does not permit continued operation under its provisions. Registration is required before the exemption becomes effective.

**Basic Grey Goods Cost**

In changing the method by which an independent converter determines his basic grey goods cost, the amendment provides that he may use a cost not exceeding the established maximum price for the grey goods on the day he makes the contract to sell the finished goods or on the day the goods enter into the finishing process, whichever is earlier.

This provision, the Administrator explained, places the independent converter on the same basis as the "vertical" mill organization which weaves and finishes its own piece goods. The changed method not only will make it possible for the independent converter to establish his maximum prices more readily but will lead to greater stability

in the prices of finished piece goods, since the former provision required that he take the actual cost of grey goods being finished.

#### Fabrics for Higher Priced Dresses

A converter who produces finished piece goods sold predominantly to dress manufacturers whose minimum wholesale price line is \$16.00 or more (or \$3.75 or more in the case of dresses produced from all-cotton fabrics) may petition OPA for adjustment of the "division factors" permitted by the regulation. Such adjustments, if allowed, can then be made to meet the specific conditions of the particular organization.

In order to provide a means whereby such concerns may operate pending formal action upon the petition, it is provided that as soon as the petition has been properly filed with and docketed by OPA, the petitioner may make sales and deliveries at prices which would be permissible under the General Maximum Price Regulation. All such sales and deliveries, however, will be subject to revision in accordance with the permission finally given by OPA.

This change is made in order to provide a flexible method of handling the problems involved in the operation of these businesses, described as follows by OPA:

"A limited number of converters produce fabrics which are sold exclusively to dress manufacturers who, in turn, produce only relatively expensive dresses . . . By their joint efforts, these converters and manufacturers are recognized as 'style leaders,' creating designs and styles which, if successful, are subsequently used, with some modification, for mass production. The costs of operation in servicing these producers are somewhat higher than those involved in bulk distribution."

#### Jacquard Fabrics

The amendment provides that the division factors for finished piece goods made only on jacquard looms shall be the same as for printed fabrics, even though the jacquard fabric is plain-dyed. Division factors for printed fabrics allow a slightly higher percentage mark-up than for plain-dyed goods.

By this change, OPA recognizes certain risks which are involved in the production of jacquard fabrics. These are essentially pattern fabrics and thus more closely analogous to printed fabrics than to white or plain dyed fabrics, even though they are customarily not printed.

The particular fabrics affected by this change are those used in the manufacture of dresses, shirts, corsets, etc., which remain subject to Regulation 127. Fabrics sold exclusively for necktie manufacture and by furrier suppliers in the form of jacquard linings are exempt from the regulation, as previously noted.

#### Premiums for Sales of Cut Lengths

A premium not exceeding 10 per cent of the otherwise applicable maximum net price may be charged on the sale of cut-lengths less than 20 yards when such lengths are cut from a larger piece to fill a specific order. This premium, however, may not be charged on a sale to a wholesaler or jobber nor where the goods are produced in such cut-lengths as a part of the original finishing operation. This change, when allowed, recognizes the additional expense involved in making such sales.

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Such leadership can be the result only of years of specialization and painstaking attention to the problems of textile mill processing rooms and the satisfactory solving of those problems.

In times such as these, this leadership assures you of unfailing sources of supply, and guarantees the experienced service of FRANK G. NORTH'S practical mill men and textile chemists in assisting you to secure highly satisfactory results in your sizing.

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Manufacturers of warp sizes and softeners of all types, for use under any existing conditions:

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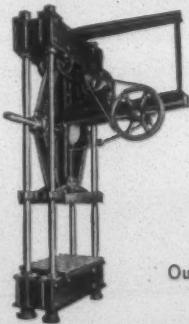


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### Clear Up Confusion On Orders No. 118 and No. 127 On Cotton goods

Any fabric covered by Maximum Price Regulation No. 118 (Cotton Products) is exempt from the provisions of Maximum Price Regulation No. 127 (Finished Piece Goods) under an amendment to the latter regulation issued June 12th by the Office of Pirce Administration.

The practical effect of the Amendment No. 3 to Regulation 127 is to correlate this Regulation with Regulation 118 as recently amended and to place under 118 sales of all finished carded cotton piece goods of a character predominantly finished and marketed by integrated or vertical mills (those which weave as well as finish or fabricate the cloth) whether or not a lot of such goods is actually finished and marketed in a particular instance by an independent converter.

Originally, Regulation 118 applied to fabrics of the specified type produced and marketed by a vertical organization and not to fabrics of the same type when finished or fabricated by an independent converter. The converter's sales of these same types were covered by Regulation 127.

Previously, the test of whether a given fabric was regulated by 118 or 127 involved consideration of (a) who customarily finished and marketed the predominant amount of a fabric and (b) who actually finished and marketed it in the particular instance. Now, only the answer to question (a) must be determined.

A second effect of this amendment is to bring under Maximum Price Regulation 127 all sales of finished piece goods of a type predominantly finished and marketed by independents, regardless of who actually finishes and markets a particular lot. Such sales are exempted from Regulation 118. Moreover, since finished goods made from combed cotton yarns are specifically exempted from 118, they will now become subject to Regulation 127 even though they may be of a type predominantly marketed by vertical organizations.

### Combed Yarns and Finished Goods Are Under Regulation No. 127

All combed yarns of the types covered by Revised Price Schedule No. 7 and all finished woven goods of the descriptions governed by Maximum Price Regulation No. 157 remain under the provisions of these two price orders, even when sold or fabricated for military purposes, the Office of Pride Administration made clear recently.

Questions had arisen in the trade, according to information received by OPA, as to whether goods or yarns of these types were exempted from these two price orders and came under the provisions of Maximum Price Regulation 157 (Sales and Fabrication of Textiles, Apparel and Related Items for Military Purposes) when made in accordance with military specifications for a war procurement agency.

This statement was made at the request of the Army Quartermaster Corps and the War Production Board, OPA said.

OPA officials pointed out that this situation is clearly provided for under Section 1378.1 (b) of Regulation 157, which states:

"The maximum prices established by this Maximum Price Regulation No. 157 shall not apply to any sale or fabrication service for which a maximum price is in effect, at the time of such sale or delivery, under the terms of any other maximum price regulation, schedule or order issued by the Office of Price Administration, except the General Maximum Price Regulation."

"All combed yarns of the types covered by Revised Price Schedule No. 7 remain under this schedule," OPA stated. "These include natural, mercerized, gassed and/or bleached yarns in numbers up to 120s, regardless of strength, put-up or other characteristics."

"Likewise, finished woven goods made of 50 per cent or more combed yarn are under Maximum Price Regulation No. 127, no matter to whom sold or for whom such goods have been fabricated."

OPA further pointed out that Regulation 157 does not apply to any other commodity for which a maximum price is in effect, except those covered by the General Maximum Price Regulation.

#### A Cotton Record

In the year of fabulous prosperity, 1929, the mills of the United States consumed 7,091,000 bales of cotton. As the depression deepened and the annual consumption fell to 5,360,000 bales in 1935, it was felt by many that never again would there be such domestic demand as in the first year of the Hoover Administration.

However, there came the so-called "false boom" of 1937 when American mills spun 7,950,000 bales. It was an ephemeral market for staple and fabric. The next year only 5,747,000 bales were used, and the Southern press was filled with lament that cotton growing was a doomed industry.

In the ten months of the present cotton year—which stretches from August 1st to July 31st—American mills have manufactured 9,202,508 bales of cotton. They are consuming at the rate of more than 900,000 bales a month and the total for the fiscal year will be better than 11,000,000 bales.

War factors, of course, predominate in the equation. Imports of fabrics are almost nothing, just as exports of raw cotton are negligible. What we get for military or civilian use must be fabricated at home. Nonetheless, this domestic production is one of the most remarkable features of American industry in 1942.

How long will it be sustained? Not even the experts of the trade have opinions worth much. Most of the cur-  
the ends would stay up.

quirements for these purposes cease, will there be a prostration of demand? Cotton goods are being used up by the civilian population at a rate that cannot be less than normal. Will there not be an ever-growing domestic need for replacement until the military needs have been fulfilled and for a time thereafter?

The questions are interesting but of less importance than the salient fact that in the cotton year now ending, consumption here will have removed as many bales of cotton as were grown in the United States last year. That has not happened since Eli Whitney invented the gin.—*Atlanta Journal*.

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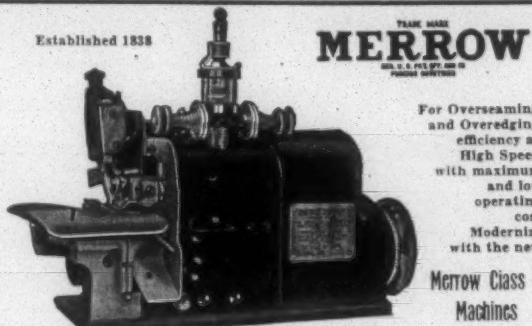
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**Army Contracts Let To Cover 1942 Cotton Duck Needs**

Washington, D. C.—The Army has already placed contracts for cotton duck that will take care of its 1942 requirements, and feels there is sufficient mill capacity to take care of all future duck requirements, even if the Army were expanded to 6 or 7 million men.

This statement was made at the recent hearings on the 1943 appropriation bill for the military establishment by Maj.-Gen. E. B. Gregory, Quartermaster General.

"Duck has been one of the most critical items," said General Gregory. "We have, however, already placed contracts which take care of our equipment program for the Army for the calendar year 1942, and on certain types of duck we have converted carpet mills to the production of that, and we feel we have the situation very well in hand."

General Gregory said the Quartermaster Corps is now buying duck for all branches of the service.

Maj. S. J. Kennedy, also of the Quartermaster Corps, in discussing the supplies of raw material available for duck manufacture at another session, said that these were ample, since much of the duck can be made from  $\frac{1}{8}$ -inch cotton, and a majority of it from cotton not more than an inch in length.

**Cotton Mill Waste, Scrap Burlap Again Placed Under GMPR**

Washington, D. C.—Scrap burlap, scrap bagging and cotton mill waste—materials used variously for bagging, lining and padding—are again placed under the provisions of the General Maximum Price Regulation to preserve ordinary channels of distribution, Administrator Leon Henderson announces.

Supplementary Regulation No. 1, which originally exempted these commodities up to the level of the industrial consumer from the general regulation, is now changed through Amendment No. 6 to provide that sales of these materials at all levels are covered by the general price order.

Cotton mills which open bales of cotton and accumulate the bale coverings, normally resell the coverings in the form of scrap burlap and scrap bagging to bagging makers. Information reaching OPA indicates that the cotton mills recently have sold this scrap material to dealers rather than to bagging manufacturers since their sales to the former are not subject to ceiling prices.

As a result, the manufacturers are faced with sharply increased raw material costs or a loss of their principal source of supply. This situation was tending to divert these fabrics to industries of less strategic importance than the reworking and reweaving of this material into bagging or cotton bale covering.

Cotton mill waste was recently excepted entirely from the provisions of the general maximum price regulation. OPA has, however, more recently ascertained that the demand for cotton mill waste undoubtedly will result in increased prices to consumers. The latest action, which makes all sales of this type of waste subject to the General Maximum Price Regulation, is intended to forestall this situation and so to avert the problem which has arisen in the case of scrap burlap and scrap bagging.

### Patents New Loom Picker

Kannapolis, N. C.—L. J. Carter, general overseer of the weaving department of Cannon Mill Co.'s No. 4 plant here, has been granted a patent on a new loom picker.

It is understood the patent covers a picker for looms wound spirally in a continuous path throughout to form both the head of the picker and the tail in which the picker stickhole occurs. A pair of rivets penetrate the head as well as the rest of the picker.

### Manhattan Rubber Goes 100% in War Savings Bond Drive

Recognition for attaining 100 per cent in its War Savings Bond Drive was given The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc., Passaic, N. J., on June 10th, when a Treasury Department Certificate and a Minute Man Flag were presented to the management at mill yard ceremonies attended by employees and officials.

The plant, one of the country's largest manufacturers of mechanical rubber goods, has the distinction of having every employee, from office boy to general manager, signed up for payroll deductions for the purchase of War Bonds. Four hundred and twenty-four employees of the company are now in the armed forces.

### Proposals To Revise Textile Standards Presented To ASTM

Atlantic City, N. J.—Proposed revisions in standards for textile materials were reported to the American Society for Testing Materials at its forty-fifth annual meeting June 23rd at Haddon Hall.

H. J. Ball, chairman of Committee D-13 on Textile Materials, reported at the afternoon session that tentative methods of testing and tolerances of woven tapes (D-259—39T) will be changed from the present form in four points.

Breaking strength shall be determined on a machine conforming to standard specifications for textile testing machines (ASTM Designation D76).

Revision of standards for immediate adoption provide for standard methods of testing and tolerances for continuous filament rayon yarns, viz., strength of rayon yarn, shall be expressed as tensile strength (grams per denier of the yarn before test) at the yield point or at rupture. Specimens for strength determination shall be drawn from the side of package instead of over the top to avoid change in twist.

Tests in which the specimen breaks at the jaw shall be rejected and tensile strength shall be expressed in grams per denier by dividing the breaking strength by the denier of the yarn.

Under tentative revisions of standards for testing wool felt (D-461-40) new sections 15 to 17 relate to water shrinkage requiring two samples, each 12 by 12 inches, to be cut preferably back from the end of the felt a distance equal to the width of piece.

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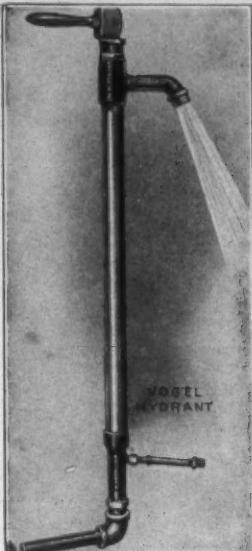
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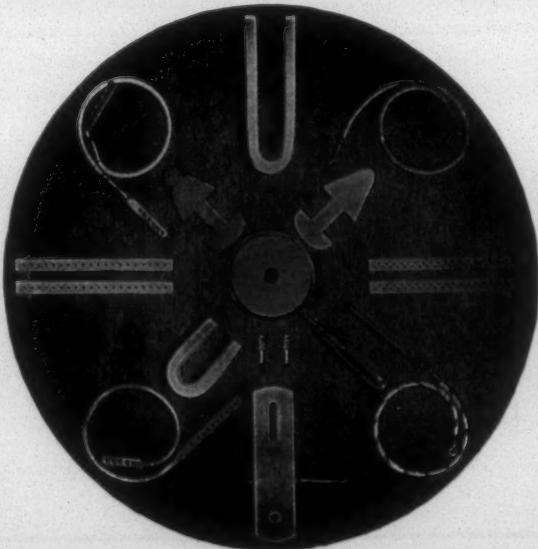


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